NEW ENGLAND FARMER

DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

VOL. X. BOSTON, SEPTEMBER, 1858. NO. 9.

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CALENDAR FOR SEPTEMBER.

"Crowned with the sickle and the wheaten sheaf,
While Autumn, nodding o'er the yellow plain,
Comes jovial on."

SEPTEMBER is the season in which the husbandman gathers the harvest, and rejoices over the fruit of his labor. The grass, the small grains and the early fruits have been secured, and the barns are filled almost to bursting.

This month the later crops, the golden corn, the potatoes, the roots, the squashes and pumpkins, and the fruits, are to be harvested. The corn crop is rather late, owing to the wet and cool weather of the latter part of July and the early part of August. But it is well grown, and a few weeks of dry, warm weather, will change its rich, milky juice into starch, gluten and oil, and give its hardened grains the color of living gold. What a wonderful chemist is nature! She finds everywhere the elements she needs. In every leaf, and seed and fruit, she is at work selecting, combining and compounding, that she may provide food for her vegetable and animal offspring. A faithful, kind and assiduous nurse, she spares no pains, and refuses no labor,—that she may supply all their wants. And she is not satisfied with barely supplying their wants, but like an indulgent mother, she caters for their various appetites, and furnishes an infinite variety to suit the tastes of all; and while she gratifies the taste, she delights to please the sight and the smell, and to awaken the love of the beautiful, by clothing her gifts in forms of beauty, and in the richest hues. While, then, we luxuriate upon the bounties of nature, let us learn the lessons she would teach us, and while our senses are gratified, may our hearts be growing better.

The farmers in Vermont and New Hampshire find it the safer way to cut up their corn as soon as the kernel is well glazed, and shock it in the field. This secures it from the frost. Perhaps there is a slight loss in the weight of the grain, which we might avoid were we sure of good weather to ripen it. But the stover is better dried off in this way, and the additional security against frost amply compensates for the slight shrinkage of the kernel. This practice, we think, is gaining favor. Those that have adopted it say it is no more work to husk the corn and secure the stover than when the stalks are cut and made into bundles before the corn is fully ripe. We think there are many fields that it will be safest to treat in this way, this fall.

The sun is now returning from his annual visit to the north, and on the twentieth of this month, he will have reached the equator, the point from which he started on the 20th of last March, just six months ago. At that time, the days and nights will be of equal length. From then, till the 20th of December, the days will be growing shorter, and we shall enjoy less and less of the cheering rays of the sun. During the long nights of the northern latitudes, the earth loses more heat than it receives in the short days, consequently the cold at length becomes so intense, and the surface of the land and the water becomes so deeply frozen, that the oblique rays of the sun are scarcely felt during the short period of his shining. If the inhabitants in these latitudes enjoy the advantage of the long days and continual sunlight in the summer, they suffer the inconvenience of short days, and the absence of sunlight in the winter. These advantages and disadvantages, the bitter and the sweet, the evil

and the good, are made to counterbalance each other in this life.

In this section of our country the fruit crop is not very abundant. The apples, we think, will be of better quality, in general, than they were last year. The early blossom promised an abundant crop. The deficiency is owing chiefly to the ravages of the curculio. This insect is the enemy which we have most to dread. The borer, the caterpillar, and the canker-worm, we can encounter with some hope of a successful result, but the curculio seems to be beyond our reach. It is but recently that it has attacked the apple, but its ravages are now widely extended, and what may be the result time only can show. We do not yet fully understand its habits. The canker-worm extends its devastations for a few years, and then partially, or wholly, disappears. Whether this may be the case with the curculio, future observation will ascertain. If its return shall be constant and permanent like that of the caterpillar, the prospect of profit from the thousands of trees that have been planted within the few years past will be greatly diminished. But we will not despair. If the crop is not abundant, those we have will bear a better price, and we will harvest them with the greater care.

SEPTEMBER is a busy month. The winter grain is now to be got in, and the earlier, the better. Those who neglected to seed down their grass lands in August, should do it as early this month as possible, that it may get well rooted before the ground freezes. Ditches should be dug or cleared out and a good stock of mud and peat thrown out for future use. Early potatoes should be dug this month. Rye and oats should be threshed, and not left till winter for the mice to riot in. Look well to your ruta-bagas and turnips, and thin them out where they are growing too thick. They will well repay a little care. Make your barn-cellar secure against the frost, that your roots may be properly protected, after they are harvested; your stock will be grateful for them during the cold and dreary season which is approaching.

We have often expressed our opinion of the value of the turnip crop. We wish we could speak our own view upon this subject in such words as would carry conviction to the minds of all our brother farmers. There is no crop, unless it be the mangel wurtzel, so easily raised, and probably no crop of equal value can be raised on the same ground, at the same expense. The value of turnips for fattening cattle, for making milk, or for promoting the health and thrift of all kinds of stock, is not duly appreciated by New England farmers. They have much to learn by experience upon this subject, and the sooner they set about it, the sooner will they be convinced of its importance. Many of our farmers depend largely upon swale or meadow hay for wintering their stock. Could they add to this a few hundred bushels of turnips, they would be able to carry their stock through in much better condition than they now do, and they would come out in the spring vigorous and healthy, and not lose two or three months in the summer recuperating from the loss of the winter. In sheep culture the value of the turnip can hardly be estimated. As food for colts and horses the ruta baga is very important. Put a half bushel of roots into a box two feet square and chop them with a sharp spade, and sprinkle a little meal or shorts over them, and they will soon learn to eat them freely. Try them once and you will be satisfied. Experience is the most convincing argument.

The present season has taught us in a forcible manner our dependence upon Providence. Much hay and some grain have been injured in the making. The excessive rain and low temperature have retarded many of the crops; we have barely escaped a frost, more than once, when it would have been very destructive. The ripening of the corn is still somewhat precarious, but the season has thus far been remarkably healthy, and we have an abundant supply for all our wants.

Let us then never indulge a spirit of repining or distrust, but enjoy with thankful hearts the blessings which Heaven bestows.

For the New England Farmer.

WHITE WEED---SOW GRASS SEED.

This infectious weed (white daisy it is called in some sections) has become a standard nuisance on nearly every farm in New England. Many beautiful fields are as white with it as if blanched with the snows of mid-winter. It was so much my abomination, and my father's before me, that every peering blossom was hunted out of the grass-field, and its roots spaded out as clean as a surgeon would trace the roots of a cancer with his microscopic eye. Why tolerate white weed in your grass field, any more than weeds in your garden or cornfield? If suffered to abide, it becomes a selfish monopolizer. In a few years little else will grow. What is its range of value as a hay crop? How does the feeding stock thrive upon it? Will your intelligent farmers give us light? The writer may be in the dark as to its nutritious qualities.

If it is the pest I judge it to be, this is the time to put in the Double Eagle Plow and give it a berth as near "Symmes' Hole" as possible. If it can make its way to the opposite hemisphere, I would say good riddance, and many a farmer would say amen.

Now upon this virgin furrow, harrow in your grass seed and your crop will be doubled the next year with pure hay, and not white weed, which cannot be called hay. No loss of time or of a crop.

The Michigan or Double Eagle Plow, with its skim sward mould-board and the large mould-board, buries it so deep, leaving the furrow pulverized even, and in fit condition to plant corn—is far ahead of the other good plows that turn a solid slice furrow. Your readers will have observed how quick twitch grass will start up between the furrows of the common plow, (yet I should use it to bury white weed if the other could not be obtained,) but with the Double Eagle, as I have seen it work, I can scarcely conceive that even twitch grass could find its way out, it is so thoroughly rolled over and packed deep in the bottom of the furrow by the large mould-board.

Plowing, Mr. Editor, is a most significant word, and is not strictly confined to the farmer, nor to this first best implement of husbandry. Politicians plow—the clergy plow—government plows—(comment is unnecessary,) but the farmer knows the genuine plow, and its legitimate, proper uses. All mankind should know it better. It opens the way to seed time,and has prepared us with refreshing harvest.

I would say, plow deep on all soils. You may not agree with me, but the roots of vegetable life are always sinking and seeking for nourishment and will surely find it. The deep-buried mould in shallow lands would be more retentive of moisture, less liable to be driven by fierce winds, less acted upon by the scorching sun, and by continuous plowing becomes a well incorporated depth of soil.

When a boy, my father cautioned me "not to plow up the yellow dirt." I am now convinced the "yellow dirt" should come *up* and the soil go *down* with the manure. Evaporation is rapid on such soil, and vegetable contact would make increased growth and a more abundant harvest. The farmer can easily test the principle. A little more team will be required to plow eight to ten inches deep than five to six inches. Surely, there can be no danger in making the experiment. Now is the time to sow grass seed.

Brooklyn, Aug., 1858. H. Poor.

HOW DRIVING AFFECTS THE MEAT OF NEAT CATTLE.

There is some excuse for the Western grazier's preference for the Durhams, as they drove them over the mountains. The fat of all cattle is the first to run off, the fine particles mixed through the flesh of the first—the kidney being coated over and more solid, holding out longer, and the red meat being the last to fall. One accustomed to driving, fattening and slaughtering, could detect a drove of "drifted" cattle from those taken fresh from the pastures, by seeing them pass on yonder road, as well as the skilful butcher could by handling them, and although the "drift" cattle might have much more kidney tallow, the meat would be as poor as wood; and, instead of being red, would be as blue as a whet-stone; whilst those taken fresh from the pasture or stall, if not so fat, would make more juicy, tender and sweeter beef. If you see a lot of cattle in the field or elsewhere, with good shoulders, or rather what a butcher would term showing his shoulder to the ear, without any flank, rest assured that they have been "drifted," or in some way injudiciously handled for slaughtering; for if there is no flank, there is not much fat. A poor bullock does not wear a good shoulder longer than to get rid of his fat, and the tenderest parts of his flesh, and the neck and round would be the only parts of such a bullock left for a steak.—*Major Dickinson's Pen-Yan Address.*

THE FALLACY OF PREMATURE EDUCATION.

When we are considering the health of children it is imperative not to omit the importance of *keeping their brains fallow, as it were, for several of the first years of their existence.* The mischief perpetrated by a contrary course, in the shape of *bad health, peevish temper* and *developed vanity*, is incalculable. Some infant prodigy, which is a standard of mischief throughout its neighborhood, misleads them. But parents may be assured that this early work is not by any means all gain, even in the way of work. I suspect it is a loss; and that children who begin their education late, as it would be called, will rapidly overtake those who have been in harness long before them.

And what advantage can it be that a child knows more at six years old than its compeers, especially if this is to be gained by a sacrifice of health, which may never be regained? There may be some excuse for this early book-work in the case of those children who are to live by manual labor. It is worth while, perhaps, to run the risk of some physical injury to them, having only their early years in which we can teach them book-knowledge. The chance of mischief, too, will be less, being more likely to be counteracted by their after life. But for a child who is to be at book-work for the first twenty-one years of its life, what folly it is to exhaust in the least its mental energy, which, after all, is its surest implement.

A similar course of argument applies to taking children early to church, and to over-developing their minds in any way. There is no knowing, moreover, the disgust and weariness that may grow up in the minds of young persons from their attention being prematurely claimed.

Correct Speaking.—We advise all young people to acquire in early life the habit of using good language, both in speaking and writing, and to abandon as early as possibly any use of slang words and phrases. The longer they live, the more difficult the acquisition of good language will be; and if the golden age of youth, the proper season for the acquisition of language, be passed in its abuse, the unfortunate victim of neglected education is, very probably, doomed to talk slang for life. Money is not necessary to procure this education. Every man has it in his power. He has merely to use the language which he reads, instead of the slang which he hears; to form his taste from the best speakers and poets of the country; to treasure up choice phrases in his memory, and habituate himself to their use—avoiding, at the same time, that pedantic precision and bombast which show rather the weakness of a vain ambition than the polish of an educated mind.—*Star.*

USEFUL KNOWLEDGE RESPECTING THE VEGETABLE FOOD OF MAN.

During the early part of the winter of 1857, the Rev. H. Wood, of Lowell, Mass., addressed the distinguished Dr. S. L. Dana, requesting information relating to the cheapest and best kinds of food. The answer of Dr. Dana has been published in the *Medical World;* it is scientific—as might be expected, coming from such high chemical and physiological authority; and it also contains much useful information, little known to the community in general. We will endeavor to present the substance of its most important points, because we believe such knowledge should be circulated through every corner of the world, concerning, as it does, the welfare of every human being.

It has been laid down as a law of physiological chemistry that all food serves two distinct purposes; one part, for building the body, forms the blood out of which come all the animal tissues; the other part forms fat, and furnishes the fuel by which the animal heat is kept up through the process of breathing. Food contains flesh, blood, and tissue formers in proportion to their amount of nitrogen. When chemistry, therefore, determines the amount of nitrogen in any kind of food, it expresses the relative value of that food for these purposes. The starch, gum, fat, sugar, and water, and occasionally a portion of woody fiber of grain, rarely minister to the wants of nutrition. These substances are the fuel formers, out of which fat may be formed, which is as essential as blood. Ten parts of fat are equal to twenty-four parts of starch, grape, and milk sugar in heating power.

Life cannot long be maintained by any food that fulfils only one part of the process of nutrition. A man fed only on that food which forms blood and tissue soon dies of starvation, and so does the man that is only fed on fuel-forming food; and if a man is deprived of certain salts, such as common salt, compounds of sulphur, phosphorus, potash, soda, lime, magnesia, and iron, he cannot long survive. And even if fed on all these three classes of substances, he will die of starvation, unless allowed a certain proportion of ready formed fat, in addition to the fat that may be formed out of the other elements of his food.

Nature has taught us the type of our food, viz., milk. It contains the essentials of four great groups of substances on which nutrition in its widest sense depends. The elements of milk are 1st. *Curd*, which is a blood former; it contains all the nitrogen and all the sulphur. 2d, *Butter*, which is fat. 3d, *Sugar*, which is a fuel former or heater. 4th, *Salts*—soluble and insoluble—the earth of bones, potash, soda, and phosporic acid.

Such are the substances which Nature has prepared for our first food—a mixture of four groups of substances. To suit human wants, according to its age, we should imitate this best natural mixture of these substances designed as the food of man.

In vegetable and animal food there are substances representing those contained in milk. Dr. Dana merely alludes to those of fish and flesh, and states (which is something new to most persons) that the flesh of fish contains the same amount of nutrient matter, as the flesh of oxen. Albumen forms gristle, sinews, membrane, muscle, nails, and is found in the nerve tubes. Fat is a lubricant, assists to form cells, and it forms part and parcel of all the chemical changes which the body undergoes, and is required for more purposes than merely heating the body. Sugar never forms part of the animal tissues, but it performs an important office in the changes of all these tissues. It forms lactic acid, and contributes largely to the formation of fat.

The waste of anything essential to life, and all its healthy functions must be supplied by a like substance. Food, therefore, is nutritious just in proportion as it contains the elements, properly mixed, which go to sustain the body and supply its waste. What is the best and cheapest food for this purpose? This is a great question, and one respecting which much *reliable* information has been wanting.

Wheat, Indian corn, rye, rice, and buckwheat, are the principal grains used in our country for food. Wheat holds the highest place in the market, and its finest flour—that which is deprived of most bran—is the dearest and the most admired. This cherished flour—the costliest—is actually the least valuable for food. The fat and salts of wheat reside chiefly in the bran, and the flour deprived of those, does not contain well-mixed nutrient matter.

Dr. Dana places Indian corn and rye above wheat for our food, and he surprises us by giving oatmeal the highest place of all—it contains the greatest amount of albumen, its starch is equal to that of fine wheat flour, and its fat exceeds that of any other cereal grain. Buckwheat and rice are poor articles of food; one pound of beans is equal to three and a half of rice or potatoes. Cabbage contains a great amount of albumen, but no fat, sugar or salts, but it is excellent for mixing with other substances, such as potatoes, which contain these. Oatmeal cake, bean and pea soup, baked beans, Indian meal pudding sweetened with molasses, are the vegetable food which he esteems to be the best and cheapest for common and general use.—*Scientific American.*

TOMATOES—SUPPORTING AND SHORTENING IN.

Few gardens are now found unsupplied with tomatoes, but very few persons take pains to cultivate them. The vines are usually left to straggle *ad libitum*. This is both bad economy and bad taste. If tomatoes are planted in rows, a convenient plan is to put up stakes on both sides of each row, and nail on horizontal strips or slats to keep the vines perpendicular. They may be carried up to the height of three to five feet. By this means the vines will show much better, especially when covered with ripened fruit clustering thickly upon the sides. The fruit itself will be much superior to that matured on the ground and in the shade. Strong twine or wires may be substituted for the horizontal slats. A cheaper process of supporting tomatoes is to bush them, in the same manner that beans or peas are treated. Our own tomatoes are planted around the border of the garden, and trained upon the fence, the vines being upheld by strips of leather, dou-

bled around the stalks and fastened to the fence with small nails.

Tomatoes are also benefited by *shortening in*. Three-fourths of the mature fruit is produced upon a small part of the vine nearest to the root, say one-third or one-fourth of its length. It is recommended to stop the further development of vines after a fair supply of fruit is set, by clipping off the vines growing beyond. The clipping should not be carried too far, as a supply of foliage is required to gather food from the air. One of the most successful cultivators in our acquaintance made it a rule to let no vine extend beyond four feet from its root.—*Am. Agriculturist.*

For the New England Farmer.

BAXTER ON EXCESS OF FOOD, OR GLUTTONY.

"Living like a beast," says Richard Baxter, "will at last make men judge like beasts; and will brutify their brains as well as their bellies."

And hence it is, as he very fairly infers, that to say, "I feel it do me no harm, and therefore it is no excess, is the saying of an idiot. Or it is like him who would go into a pest-house and say I feel it do me no harm. But within a few days or weeks he will feel it. It is as if the beginning of a consumption were no hurt to people because they feel it not." "Most people," he adds, "have no considerable knowledge what measure (*quantity*) is best for them; but the common rule that they judge by is their appetite. They think they have eaten enough when they have eaten as long as they listed, and not before. If they could eat more, with an appetite, and not get sick after it, they would never think they had been guilty of gluttony, or of excess."

He next proceeds to lay down some general directions for our conduct in this matter, which are so striking that I copy them, with merely a few passing comments in parentheses.

"First, therefore, you must know that appetite is not to be your rule or measure, either for quantity, quality, or time. For it is irrational; and reason is your ruling faculty, if you are men. Indeed it (appetite) dependeth much on the temperature of the body and the humors and diseases of it; and not merely on the natural need of food. A man in a dropsy is most thirsty that hath least cause to drink; though frequently, in a putrid or malignant fever, a draught of cold drink would probably be death, yet the appetite desireth it, nevertheless. Stomachs that have acrid humors have commonly a strong (*active*, rather) appetite, be the digestion never so weak; and most of them could eat with an appetite about twice as much as they ought to eat. And, on the contrary, some others desire not so much as is necessary to their sustenance, and must be urged to eat against their appetite.

"But, again, most healthful people in the world have an appetite to much more than nature can well digest; and would kill themselves if they pleased their appetites (*i. e.*, made it there business to please their appetite.) For God never gave man his appetite to be the measure of his eating or drinking, but to make that grateful to him, which reason biddeth him take. Man's appetite, you know, is not now so sound and regular as it was before the fall; but is grown more rebellious and uneasy and diseased, as the body is; and therefore it is now much more unfit to be our measure than it then was. You see it even in swine, (?) and many greedy children, that would presently kill themselves if they had not the reason of others to rule them.

"Finally, poison itself may be as delightful to the appetite as food, and dangerous meats as those that are most wholesome. So that it is most certain that appetite is not to be the *measure* (as appetite regards *quantity* of a man.) Yet this is true withal, than when reason hath nothing against it, then an appetite showeth what Nature taketh to be most agreeable to itself, and Reason, therefore, if it have nothing against it, hath something for it."

Nowhere, in the whole compass of my reading, have I met with sounder views—more in accordance, I mean, with the laws of man's constitution, as interpreted by science and experience—than those of Mr. Baxter. His position that "living like beasts makes us judge like beasts," is not more striking than it is tenable; and perhaps his broad statement that "God never gave man his appetite to be the measure of his eating or drinking, but to make that grateful to him which Reason biddeth him to take," may have much more of truth in it, than we are wont to suppose.

In any event, nothing can be clearer to my own mind though nothing should be more paradoxical to others, than that we are to be guided by our appetites as regards "quantity, quality or time." This doctrine of Mr. Baxter is certainly sound and defensible. And there is a plain reason for this. While the animals below man are left to the direction of mere instinct, this in man subserves his purpose no longer than till his reason is developed and has an opportunity to become its substitute. As reason takes possession, instinct dies out. In the fully developed adult, instinct is powerless.

As adults, therefore, as creatures of reason and not of instincts we are to ask our heads and not our stomachs or any of our inferior organs what we should do. These latter have neither eyes nor ears; but the former has both. Besides its elevated position in the physical human domain is favorable to their exercise. In other words, we are never, as mature reasoning men and women, to ask, first, what is agreeable to our instinctive feeling—our perhaps perverted tastes—but simply what is right. The question, to young or old, what do you like, or do you like this or that, should seldom, if ever, be heard; and never in the first place. The first question, I repeat, is what is right. That being ascertained, the full measure of mere agreeableness, Heaven's own measure—is sure to come in its train.

Yet the great mass of mankind persist in asking as the first question in all these things—who will show us any good, or what is most agreeable. Professed disciples of Christ, in instances almost innumerable, ask their own appetites, their fallen appetites or stomachs, as Mr. Baxter calls them, what is liked or what is relished, not what God would have done. They seek to please themselves, not to please God. Is this Christianity? Is it favorable to our growth in grace, supposing us to be Christians? What! Growing in grace and in the knowledge of our Lord Jesus Christ,

when instead of doing, like Him, the will of our Father in Heaven, we do our own will three-quarters of the time? For he who makes his own natural preferences, whether right or wrong, the measure or rule of his conduct with regard to the gratification of his appetites will not stop here. He will be led gradually, perhaps insensibly, to ask his own perverted preferences about every thing else, in the ordinary routine of daily life; our dress, our society, our conversation, our manners and habits. And what is that Christianity worth which only leads us to regard the will or pleasure of God on occasions, whose aggregate scarcely makes up one-fourth of our existence? Are we under no sort of obligation to give heed to the injunction, "Whether, therefore, ye eat or drink, or whatsoever ye do, do all to the glory of God?"

Mr. Addison, who was by no means too fully consecrated to the work of pleasing God, says in relation to the gratification of our appetites and passions and tastes, "Fix upon what is best for you and custom will soon make it agreeable." Here philosophy and Christianity meet hand in hand. They point to one and the same. They do not teach us to ask what we like or what perverted appetites or passions or tastes or relishes in others would lead them to like; but, rather, what God likes—what he would have us do, or in other words, what is right. For the pleasure, having done what is right, we may fully trust.

For the New England Farmer.

AN EASY WAY TO RAISE STRAWBERRIES.

Any one can raise a few boxes of strawberries, which will add to their pleasure and comfort. In the early part of August, prepare a bed as you would to sow beets, three feet wide, and as long as you please. Spade it up thoroughly at least a foot and a half deep, and better if two feet in depth. Set as you would cabbages, Brighton Pine, Jenny Lind, or early Virginia plants, two rows, twelve or fifteen inches apart each way. If you can easily get saw-dust, or old tan, or spent tan from the tan-yard, cover the whole surface of your bed with it two inches deep, at the same time that you set out your plants, placing it carefelly around and close to the plant, but not burying its leaves. If you cannot get saw-dust or tan, lay on a thick coating of salt hay, or rowen, but beware of any covering which has either seeds or roots in it. Water the plants well, with soapsuds, or water, during the dry weather of August and September; pinch off the runners when they begin to run. Protect them from the winter by a loose coating of coarse straw, which allow to remain till April. If the spring is dry, water them occasionally, and pull up all weeds and grass that make their appearance before the strawberries blossom, but do not dig, or fork up the soil, nor disturb the roots of your plants; drench them thoroughly with water two or three times after the berries have set. The first summer you will have strawberries enough to repay you for your labor; the second, third, and fourth summers you will have an abundant crop, and with scarcely any labor except weeding and thinning the plants a little in autumn, and weeding a little in spring.

Strawberries, I speak of garden culture, do not need high manuring, but they do require a deep soil, undisturbed roots and moisture. A strawberry root will run into the earth about as far as it finds a loose soil. I have known good crops from beds treated as above, five years in succession. The above is of no use to those skilled in the culture, but may be useful to many who have small bits of land, and would like a few strawberries of their own, if they knew it is as easy to raise a bushel of strawberries, as a bushel of potatoes, and at a not much larger outlay of labor and land. The watering may be wholly omitted, not being necessary, but still highly beneficial.

Boston, July 10, 1858. M. F. DUNCKLEE.

For the New England Farmer.

THE WEST VS. NEW ENGLAND.

MR. EDITOR:—It is said that "nature has implanted within the bosom of all men a love for the land of their birth," an affection for one's country. Whether this be true or not, there is a strong desire in most men to be the owner of land. Indeed, I sometimes think a *man* cannot be a *true* man, and feel such in all his dignity, unless he is a free-holder—a land-owner; this at once elevates him in his own estimation, and more or less by the community. Seeing, then, that all men are possessed with this feeling, the question is, how can they satisfy this feeling? Of course, there are many ways by which it can be done. Earning it at home, or going West to do it. I propose saying a few words about going *down East*, instead of going West.

Having had a touch of the western fever, I entered into a careful estimate of the advantages offered in New England and the West. So far as *land* is concerned, it is cheap in either; but taken as a whole, as going into farming as a means of getting a living and profit, I have come to the conclusion that the advantages are altogether in favor of New England. To make a long calculation short, I estimate the pros and cons something in this way. I conclude to go West, and in order to get me a farm at government price, I have got to go a long distance from the larger towns and villages. Here I find land enough truly, good land, there is none better out door, and this is all. No roads, no fences, no buildings, no school-houses, no churches, no stores, in fact, "no nothing" but land. Now, then, I conclude that before my farm is worth much, all these must be within a respectable distance, and I have got to do my part towards having them, and by the time I can enjoy my farm with all these privileges, it will have cost me quite a fortune. There is no fancy here, but an actual reality, what every Western farmer knows, or is learning every day. Now take the same money which the Western farm costs, and go into any of our New England States, and it will buy a farm good enough for any body, and leave money enough to put at interest, to carry on your farm with as much profit, and I think with greater profits, than the Western farm can produce. And this, too, without a sacrifice of some of those things which add so much to our comfort and happiness in this life, such as old friends and associations.

I beg of our young men, before they decide to

go West, to think on these things, and in this particular "let your moderation be known unto all men." I have lately seen a short article going the rounds of the papers, about the unoccupied lands in the State of Maine. Here are lands, according to *all* accounts, of the very highest order, which can be bought cheap enough to satisfy a Jew; they are not "clear out of the world," but in good *old* New England, near a good market, and surrounded with all the advantages and blessings of an old civilized community. Now if any young or old man has the western fever, and is bound to go somewhere—I would advise him to take a strong dose of "Down East," and look at these unoccupied lands in the State of Maine.

King Oak Hill, 1858. NORFOLK.

PRODUCTIVE FARMS.

To a person not familiar with the history and statistics of English husbandry, the surprising productiveness of the lands of that country will appear incredible. Nearly nine-tenths of the cultivated lands in England and Ireland are rented to tenants who pay usually from four to five pounds sterling, about twenty-five dollars, per acre annual rent.

Where is the farmer in this country who could "live" under such a burden?

Here, a farm containing from eighty to a hundred acres, is often rented for one hundred and fifty dollars—and sometimes less—and even at this rate the tenant has a hard task! The cultivation, even where there are a large number of acres in grass, will little more than pay the rent and taxes; but in England, the result is widely different. The tenant who there pays five pounds sterling, per acre, annual rent, and finds all appliances, obtains not only the means of a comfortable subsistence, but wealth, from the prosecution of a calling which here would doom him to want and destitution, and ultimately, death, unless assisted by the town.

In 1811, Mirwin estimated the produce of one English farm of 890 acres at £8,578—or $38,000! The quantity of manure applied was 13,746 one horse cart loads in one year; and 10,250 the next!

Now admitting the rent of this farm to be but $12,00 per acre, and the cost of the manure and its application $12,00 more, and if to these sums we add, for interest or expenses, taxes, and various contingent expenses of cultivation, &c., $12,00 more, we shall find, upon striking the balance, that there will remain a profit of $10,00 per acre—amounting in the gross aggregate to the sum of $10,000 clear gain to the occupant in a single year!

In the vicinity of London, a hay farm, comprising 160 acres, was rented. The rental, in this instance, was $12,00 per acre—amounting in all to $1920 per year. A heavy expenditure was required for manure—probably as much as many a New England farmer would have been willing to give for the fee simple of the land, and yet the tenant succeeded, and has since become wealthy, and with no other income than the produce derived from this one farm.

In Ireland, a poor tenant had one acre of land, erected a cottage, purchased manure and farming tools, and the first year cleared all expenses, and had a balance of forty dollars left. And yet that Irish peasant, in addition to the expenses and outlays above enumerated, had a church tax to pay, and be at the expense of purchasing his own seed, and maintaining a family of four besides himself and wife!

In this country we cultivate *too much land.* Were we to concentrate our energies upon one-quarter of the soil, we should derive greater profit from our labor, and instead of exhausting our farms, should keep them in a condition of constant improvement. Look where we may, we find that the independent farmers—the "good livers" of the country, are, in nine cases in ten, the occupants of small farms.

VALUE OF SHEEP TO THE FARMER.

Sheep are profitable to the farmer, not only from the product of wool and mutton, but from the tendency which their keeping has to improve and enrich his land for all agricultural purposes. They do this:

1. By the consumption of food refused by other animals, in summer; turning waste vegetation to use, and giving rough and bushy pastures a smoother appearance, and in time eradicating wild plants so that good grasses and white clover may take their place. In this respect, sheep are of especial value to pastures on soils too steep or stony for the plow. In winter, the coarser parts of the hay, refused by horses and cows, are readily eaten by sheep, while other stock will generally eat most of that left by these animals.

For these reasons, among others, no grazing farm should be without a small flock of sheep—for it has been found that as many cattle and horses can be kept with as without them, and without any injury to the farm for other purposes. A small flock, we said—perhaps half a dozen to each horse and cow would be the proper proportion. A variety of circumstances would influence this point; such as the character of the pasturage, and the proportion of the same fitted and desirable for tillage.

2. Sheep enrich land by the manufacture of considerable quantities of excellent manure. A farmer of long experience in sheep husbandry, thought there was no manure so fertilizing as that of sheep, and (of which there is no doubt) that none dropped by the animal upon the land suffered so little by waste from exposure. A German agricultural writer has calculated that the droppings from one thousand sheep, during a single night, would manure an acre sufficiently for any crop. By using a portable fence, and moving the same from time to time, a farmer might manure a distant field with sheep at a less

expense than that of carting and spreading barn manure.

The value of sheep to the farmer is much enhanced by attention to their wants. Large flocks kept together are seldom profitable, while small, assorted flocks always pay well, if fed as they should be. To get good fleeces of wool, and large, healthy lambs from poor neglected sheep is impossible. It is also true, that the expense of keeping is often least with the flocks that are always kept in good condition. The eye and the thought of the owner are far more necessary than large and irregular supplies of fodder. Division of the flock and shelter, with straw and a little grain, will bring them to spring pastures in better order than if kept together with double rations of hay, one-half of which is wasted by the stronger animals, while the weak of the flock pick up but a scanty living, and oftentimes fail to get that through the whole winter.

We commend this subject to the consideration of our correspondents—it needs attention on the part of the farming public.—*Country Gentleman.*

For the New England Farmer.

CHINESE SUGAR CANE AND MOWERS.

MR. EDITOR:—What say you of the *sorgho* the present season? If my memory is right, you were of the number the last year that hoped benefit to accrue from its culture. I have inquired for it, but have not found any—or at most "none to speak of," as the bachelor said of his children. Some answer that their seed did not ripen sufficiently to vegetate; but generally the impression seems to be that it is not worth cultivating; certainly not here at the North.

I have just come in from witnessing the operations of mowers. There were four in the same field, all mowing at the same time—completely harnessed and skilfully driven—cutting and spreading the grass to the admiration of all who saw them. Beyond question, implements of this character are destined to survive and be practically useful. I look forward to the time when a mower, moved by the power of one horse, cutting a clear swarth of four feet, in grass yielding two tons to the acre, completing an acre an hour, shall be deemed as indispensable an implement on every well furnished farm in New England, as a plow or a harrow.

Our friends of the State Society did not misapprehend the importance of the value of this implement, when they offered a premium of $1000 for one of unexceptionable structure; and although the award was made somewhat precipitately, still there is reason to believe that the principle on which the Heath mower is constructed, will be found the very thing that is needed.

July 14, 1858. ESSEX.

REMARKS.—Certainly, sir, we always "hope" for the best. Our people gave the *sorgho* a pretty fair trial last year, and have generally come to the conclusion that when molasses is *one dollar a gallon*, they will do well to cultivate the *sorgho* and *raise their own sweetening!* We commend them for making the effort—don't you? It is pleasant to have all doubtful questions settled.

PULPING OR MINCING ROOTS.

At a recent meeting of the *London Central Farmers' Club*, the subject under discussion was that of the expediency of reducing roots, such as turnips, beets, parsnips, carrots, &c, to a pulp, before feeding them out to stock. Mr. FORDHAM, a gentleman of some agricultural distinction, and whose name we frequently see in the English agricultural papers, addressed the meeting and recited many instances of cattle being fatted economically on *pulped* roots, and commended the process to general use. Several other gentlemen spoke in favor of the practice, some of them relating their own experiences in the matter.

We have excellent machines among us to cut roots quite fine, and a practical use of one of them has convinced us of their utility and economy, especially where the roots are to be fed to sheep or young cattle.

There is also a machine in use, devised by Mr. ————, of Lowell, Mass., for reducing roots to a pulp—this we have also used, but soon found that it required something more than man power to run it. The pulp sprinkled upon cut hay made a feed for which the cattle were extremely eager, and upon which they flourished remarkably well.

It is well to note these experiments by others, as well as to make them ourselves whenever opportunity and convenience will permit. The farmer is already deriving great benefits from such sources.

For the New England Farmer.

WELLS FOR KEEPING MILK.

I would like to make a simple suggestion through the columns of your paper, thinking it may be of advantage to some, as it would have been to me five years ago. It is in regard to a well for the purpose of keeping milk.

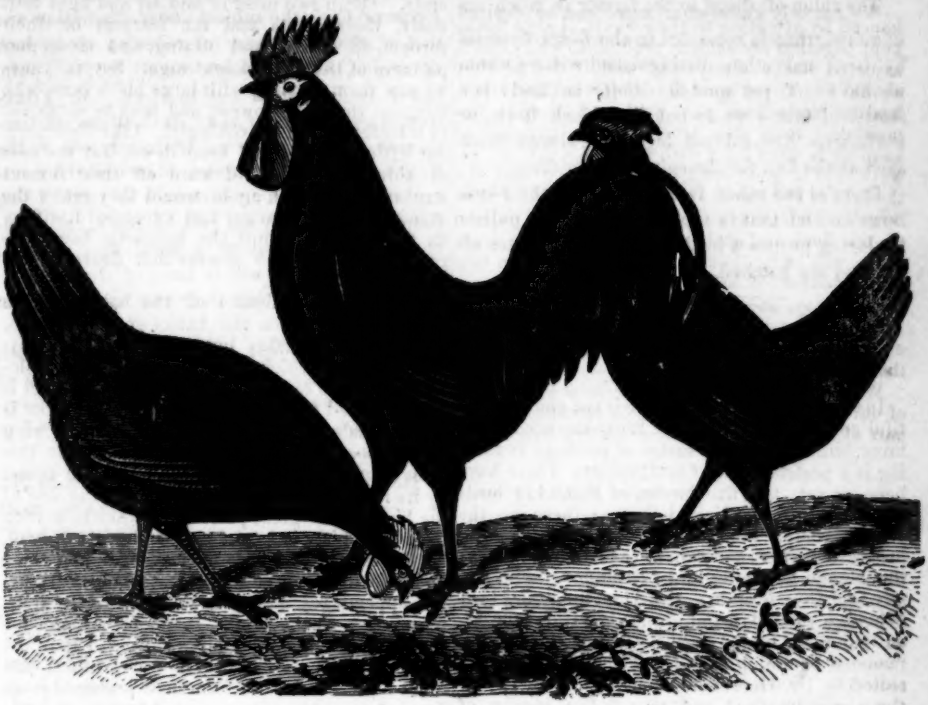
It is injurious to the water of a well, used for any other purpose, to put cans of milk in it, and it is no small labor to pump water to cool and keep milk in tubs or troughs.

Last summer I dug a well for this purpose. It is near the barn, and in a convenient situation for the neighbor to take who carries milk to the railroad. It is about seven feet deep, with about three feet of water.

The soil at the top for making manure in the barn-yard, and the gravel at the bottom for mending the highways, nearly paid for digging. A few loads of stone for the walls, and a simple platform of plank, with a square of joist for the cover to rest upon, includes the expense. It is in the shade of some quince trees, and near a natural spring.

It is not every farmer who needs such a well, that has a convenient place for digging it, without going too deep for water,—but there are a number in every town in this vicinity, who might be benefited by such a well.

Lincoln. JAMES FARRAR.



BLACK SPANISH FOWLS.

Among the various breeds of fowls which have been reared in our own yard, that which is illustrated at the head of this article has not yet been one. We are, therefore, only able to give the experience and commendations of others. They are said to possess many and rare merits. Their appearance is certainly very fine.

In an English work on Domestic Poultry, by Messrs. *Dixon & Kerr*, it is said that a thoroughbred Spanish fowl should be entirely black, as far as feathers are concerned, and when in high condition, display a greenish metallic lustre. The combs of both male and female are very large, of a brilliant scarlet, and that of the hen drooping over on one side. Their most singular feature is a *white mark on each cheek*, of a fleshy substance, similar to the wattles; which is small in the hens, but large and very conspicuous in the cocks.

A full-grown cock may weigh nearly *seven* pounds, and a hen about *six*. The comb is deeply serrated, and the wattles are very long and the bird quite free from top-knot. They are not very pugnacious. The hens are not inclined to set, but are good layers; eggs large and white.

Francis Blake, Esq., of Boston, who has bred this variety since the year 1847, his communicated his opinion of the breed to Mr. Kerr, who has transferred it to a recent edition of the "Domestic Poultry." He says:—"I have seen no breed of fowls more peculiar and strikingly attractive in its appearance than this; and as regards their laying qualities, and character for the table, I decidedly prefer them to any others with which I have had experience. They are literally *everlasting layers*. Their peculiar disinclination to set is very remarkable; for, in my experience, I have been exceedingly annoyed by the constant propensity which some other breeds have manifested in this respect. For the period of more than three years, during which I have had them, the hens have not in a single instance manifested a desire to set."

Richardson, another writer on poultry, says that "as table birds they hold a place in the very first rank, their flesh being particularly white, tender and juicy, and the skin possessing a beautifully clear white hue. They are, besides, prolific, extremely easily fed; and, in short, I know of no fowl I would rather recommend to the no-

tice of the breeder." The commendations of *Dixon* are also equally decided.

We scarcely know what more can be desired in a fowl, than is conceded to the *Black Spanish* by these, and other distinguished writers whom we have not yet quoted. *Color* in fowls is a matter of taste; we do not like black fowls, or fowls with lilac-colored legs, and always mark such as the first for the spit or the gridiron.

There is one other fact in regard to the Black Spanish, and that is their value as early pullets for laying purposes in the autumn and winter after they are hatched.

For the New England Farmer.

ORNITHOLOGY.

BY S. P. FOWLER.

In our long list of birds, there is not one so beautiful and diminutive, as the Ruby-throated humming bird, its metallic lustre of plumage rendering it a perfect jewel of ornithology. There have been, as yet, but five species of humming birds discovered in the United States; these are, the Ruby-throated humming bird, *(Trochitus colubris)* every where common in the Atlantic States; the Mango humming bird (*T. Mango.*) occasionally found in Florida; the Anna humming bird (*T. Anna,*) found in California; the Rufus throated humming bird, (*T. Rufus;*) and the Purple-throated humming bird (*T. Alexandri,*) first detected by Dr. Heerman at Sacramento City. Of the three hundred and twenty-five species of humming birds now known, but one, the Ruby-throated, is found in New England. Mr. Cassin, in his "Birds of America," says, in size the humming birds vary much. The Giant humming bird of Brazil, which is the largest, though one of the plainest, is about the size of the Chimney bird of the United States, and several fine species of the later discoveries in this group are but little smaller. Several species are quite as large as the house wren. On the other hand, there are humming birds little larger than the humble bee of our meadows; and there are many species of beetles and other coleopterous insects, that are much larger. The common ruby-throated humming bird of the United States, is a medium species, and of respectable dimensions, when compared with some of his pigmy brethren of the far South. Mr. William H. Edwards, in a "Voyage up the Amazon," thus describes the little Hermit humming bird: "Wherever a creeping vine opens its fragrant clusters, or wherever a tree flower blooms, may these little birds be seen. In the garden or in the woods, over the water, everywhere, they are darting about; of all sizes, from one that might easily be mistaken for a different variety of bird, to the tiny Hermit *(Trochilus rupigaster,)* whose body is not half the size of the bees buzzing about the same sweets. Sometimes they are seen chasing each other in sport, with a rapidity of flight, and intricacy of path, the eye is puzzled to follow. Again circling round and round, they rise high in mid-air, then dart off like light to some distant attraction. Perched upon a little limb, they smooth their plumes, and seem to delight in their dazzling hues; then starting off leisurely, they skim along, stopping capriciously to kiss the coquetting flowerets. Often two meet in mid-air and fight furiously, their crests and the feathers on their throats, all erected and blazing, and altogether pictures of the most violent rage. Several times we saw them battling with large black bees, who frequent the same flowers, and may be supposed to interfere often provokingly. Like lightning, our little heroes would come down, but the coat of shining mail would ward off their furious strokes. Again and again would they renew the attack, until their anger had expended itself by its own fury, or until the apathetic bee, once roused, had put forth powers that drove the invader from the field."

From this description of the habits of the humming bird, from the banks of the Amazon, we perceive it differs but little from our ruby-throated gem, which is made by some ornithologists the type of a genus. The humming bird is distinguished for its rapid flight, and has what is called a falcated, or sword-shaped form of wing that is possessed by no other bird. It is this form of pinion that causes the humming sound by its rapid vibrations. It is large for the size of the bird, and of great power, and when in motion the whole body is completely under its control. As the tiny birds moves in their quick and rapid flight, darting from side to side, their bodies seem but appendages, and sway and swerve like flowing dresses in the wind. It was for a long time supposed that humming birds subsisted upon the nectar of flowers only; it is now ascertained that small dipterous insects form their principal food. The habits of the ruby-throated humming birds are so well known to the readers of the *New England Farmer* that I will not repeat what has been written by our ornithologists. Mr. Charles Waterton, the eccentric and enthusiastic ornithologist who rode the Cayman in the rivers of Demerara, takes exceptions to Mr. Audubon's account of the humming bird, where he says, that in one week from their hatching they are able to fly. Waterton remarks that "Mr. Audubon tells us, that in one week the young of the ruby-throated humming bird are ready to fly. One would suppose, by this, that they must be hatched with a good coating of feathers to begin with. Old dame nature sometimes performs odd pranks. We are informed that our crooked-back Dicky the Third was born with teeth; and Ovid mentions the astonishingly quick growth of certain men. He says, in his account of the adventures of Captain Cadmus, who built Thebes, that the captain employed some men as masons, who had just sprung up out of the earth. I have Mr. Audubon's account of the growth of the humming bird, and I have read Mr. Ovid's account of the growth of Captain Cadmus' masons, and both very attentively. I think the veracity of the one is as apparent as the veracity of the other. What, in the name of skin and feathers, I ask, has Mr. Audubon found in the economy of the ruby-throated humming bird, to enable him to inform Englishmen, that its young can fly in so short a space of time? The young of no other bird, that we are acquainted with, from the Condor to the Wren, can fly when only a week old." With all due allowance for the prejudices of Mr. Waterton against our great ornithologist, we still think

his criticisms just. We do not believe a humming bird, naked, blind, and so feeble as scarcely to be able to raise its little bill to receive food from its parents, as Mr. Audubon asserts is their condition when hatched, would be able to fly in one week! Can any reader of the *Farmer* give us any information upon the subject? Mr. Waterton, in continuing his criticisms, says, "A word on the cradle. Mr. Audubon tells us, that the little pieces of lichen, used in forming the nest of the humming bird, are glued together with the saliva of the bird. Fiddle! The saliva of all birds immediately mixes with water. A single shower of rain would undo all the saliva-glued work on the nest of Mr. Audubon's humming bird."

Now Audubon is not singular in his belief that the bird in question uses saliva in the finish of its cradle, as the same is asserted by Wilson and Nuttall. Upon the examination with a good glass, of a nest, that has undoubtedly been exposed to storms of rain, we find the coating of lichens firmly attached to it. Audubon's description of the humming bird's nest is as follows. "It is of the most delicate nature, the external parts being formed of a light grey lichen, found on the branches of trees, or on decayed fence-rails, and so neatly arranged round the whole nest, as well as to some distance from the spot where it is attached, as to seem part of the branch itself. These little pieces of lichen are glued together, with the saliva of the bird. The next coating consists of cottoney substance, and the innermost, of silky fibres obtained from various plants." Wilson's description is as follows: "The outward coat is formed of small pieces of bluish grey lichen, that vegetates on old trees and fences, thickly glued on with the saliva of the bird, giving firmness and consistency to the whole, as well as keeping out moisture. Within this are thick, matted layers of the fine wings of certain flying seeds, closely laid together; and lastly, the downy substance, from the great mullein, and from the stalks of the common fern, lines the whole." Nuttall in describing the nest of the humming bird, says, "it is concealed by an artful imitation of the mossy branch, to which it is firmly attached and incorporated. Bluish-grey lichens, agglutinated by saliva, and matched with surrounding objects, instinctively form the deceiving external coats; portions of the cunning architecture, for further security, are even tied down to the supporting station. Within are laid copious quantities of the pappus or other down of plants; the inner layer of this exquisite bed, is furnished with the short wool of the budding Platanus, the mullein, or the soft clothing of unfolding fern-stalks." A nest of our bird lying now before me, is composed mainly of the purple cottony substance, from the stalks of the fern, intermixed with a short fibrous vegetable substance, evidently with the design of holding together the short staple of the fern cotton or down. This fibrous substance seems to be thoroughly incorporated throughout the entire nest, and as seen on its outside, appears in some degree to hold and retain the lichen in its place. Portions of this outside deceptive finish are so firmly attached to the nest, as, when taken from it, to bring away some small parts of the fabric with it, while other portions found detached from the nest, remain in their position, by the fibrous substance surrounding them. So that it is at least safe to say to Mr. Waterton as at present informed, that "if the gluten don't stick," the lichen, with its rough edge and surface, is kept in its place by being imbedded into the fibrous cotton probably by the bill of the bird. It is therefore not so clear that the account given by our three most distinguished ornithologists, in the matter of hum-bird gluten, should be considered apocryphal, and be classed with the fabulous accounts of the red-throated humming bird, as related by father Chavlevoix or Fernandez Oviedo.

Danvers Port, July 19, 1858.

RAISING AND PICKING GEESE.

When the good motherly goose wishes to set, give her eleven eggs, and shut her away from other geese and ganders. Supply her with food and water—give her grass as well as corn, if the former is sufficiently grown for gathering. In four weeks the young goslings will begin to appear, and will all hatch in a day or two's time. Don't hurry them from the nest, nor be overanxious to have them eating; they will be ready for that when they become older. Feed them with a little bread and milk at first—corn meal does not seem to agree with them as well. Let them go to grass and water in pleasant days. A shallow vessel, which they can get in and out of readily, supplied frequently with clean water, is as good as any, so far as raising geese is concerned, though it is less trouble if one has the pond for them. Be sure and shut them up at night, in a warm, dry place, and keep them there until the dew is off, in cold mornings. Shut them up in cold, stormy days, also, feeding them with handfuls of fresh clover. If no accident befals them, they will live and grow, without trouble.

There is no machine for picking geese, that ever I heard of; the thumb and finger must do that work. The time to do it is when the feathers are ripe, which occurs about four times during the season. Feathers picked when green—in the pin-feather state—are not fit to put into a bed; they can not be cured so as to be as light and sweet as ripe feathers are. When picked, put the feathers in a sack made of thin cloth—an old sheet is good—and dry them perfectly in the sun. Afterward, they will keep good in any dry place.—*Genesee Farmer.*

ACCOUNTS OF THE CROPS.

During the busy period when the crops are growing, and need constant attention, most of our farmers feel obliged to remain pretty constantly at home and give them the care which they require, and they can, therefore, only learn what the prospects of the crops are in other sections than their own, through the papers of the day, or by casual reports from travellers.

We, therefore, invite our correspondents to favor each other and the general reader with such brief reports of the state of the crops, as may be found from Berkshire and Middlesex counties in this paper.

We shall be glad of reports from all the New England States, from the South and West, and the Canadas, as we have readers in them all.

By mingling brief remarks in these reports of the causes of failure or success in certain crops, we believe much valuable information may be disseminated throughout our whole circle of writers, readers and operators.

CURIOSITIES OF COMMERCE.

Turning over the pages of the *Cyclopædia of Commerce*, just published, a few matters attracted our attention as curiosities which we propose to transcribe for our readers. We were lacking for the small things in commerce, matters that, in taking a magnificent, broad and comprehensive view, would be overlooked. Just as an invention of the greatest importance for domestic purposes would be overlooked and unnoticed, in its homely attire, when placed in an exhibition and surrounded by works of polished art, costly machinery and gorgeous furniture. A humble inventor once placed in such an exhibition a few bunches of friction matches. They were unnoticed. Visitors went there looking for some great thing, not realizing that the despised package of splints, tipped with chemical fire, was the greatest thing in that proud collection, destined to work a revolution in the means of procuring artificial light, and to become a universal necessity, to be deprived of which would be one of the greatest inconveniences that could happen.

It is not more than twenty years ago since the tinder-box was in universal use. It is abolished now. The invention of the friction match spread slowly, but who, at this day, would venture to say they could do without it? Insignificant as they appear to be, single factories with extensive machinery, cut up large rafts of timbers annually for matches.

Under the head of Pin, we find that the manufacture of this indispensable little instrument was commenced in the United States between 1812 and 1820, since which time the business has extended greatly, and several patents for the manufacture of pins have been taken out. The manufacture in England and other parts of Europe is conducted upon improvements made in the United States. Notwithstanding the extent of our production, the United States imported in 1856 pins to the value of $40,255.

Still keeping our attention directed to small things, we find that the imports of needles into this country for 1856, amounted to $246,060. It is said that needles were first made in England, in the time of the bloody Mary, by a negro from Spain; but as he would not impart his secret, it was lost at his death and not recovered again till 1566, in the reign of Queen Elizabeth, when a German taught the art to the English, who have since brought it to the greatest perfection. It is stated that the construction of a needle requires about 120 operations, but they are rapidly and uninterruptedly successive.

The Temperance people will find an argument to enforce their doctrines in the fact that 41,071,636 bushels of grain, paying twenty-five million dollars duty, are annually converted into malt in Great Britain for ale and porter. It may reasonably be inferred that a great quantity of these beverages is drank there.

Ground nuts are quite an institution with Young America, eight hundred tons having been imported into the United States from Gambia in one year. We, however, dissent from the encyclopædist, when he says they are most used here at dessert, roasted, as chestnuts are elsewhere. But France is the great market for ground nuts, where they are used for oil of which they contain large quantities. The insignificant Hazel nut, so agreeable to the palate, but so difficult to get, is exported from Tarragona, to the extent of 25,000 or 30,000 bags of four to the ton. A kind of chocolate is prepared from them and they have sometimes been made into bread. The pressed oil of hazel nuts is little inferior to that of almonds.

The original inventor of the Ayrshire snuff-boxes was a cripple hardly possessing the power of locomotion. They are made of wood, admirably joined, painted and varnished, and were first manufactured only sixty years since. Instead of taking out a patent, the inventor entrusted his secret to a joiner in the village, who in a few years amassed a great fortune, while the other died as he had lived in the greatest poverty. Speaking of snuff-boxes, snuff-taking took its rise in England in 1702. Under the head of *hair* the *Cyclopædia* says that two hundred thousand pounds weight of woman's hair is annually sold in France and that the price paid for it is usually six cents an ounce. One hundred roses are required to give a yield of 188 grains ottar or oil of roses.

There are, doubtless, in this compendious work, a great many curious, interesting and instructive facts, if one had the time to search them out. And now, as we are closing, we notice quite a number of items, such as that a bale of Sea Island cotton weighs 333 pounds and measures 35 cubic feet, while a bale of East India cotton weighs 383 pounds and only measures 15 cubic feet, a fact of great importance in the question of transportation. What makes this great difference in cubic proportions?—*Boston Herald.*

For the New England Farmer.

A CHEAP FEED FOR SWINE.

Happening to call upon a lady a few days since, not a milliner shop one, but a well educated one, who knows what it is to grapple with the practical duties of life in the kitchen and the parlor equally, and who now is compelled to provide for her orphaned children,—I saw in her kitchen a new mode of providing food for a pig. She had caused a large boiler to be filled with weeds which her little boys had pulled up about the premises, for she superintends a small farm, and these were being boiled. More were added from time to time, till the whole kettle was filled with well boiled greens. These, when done, were taken out with a pie slice and well cut up. A little bran and the slops from the kitchen were added and fed to the pig. She remarked that he seemed to like the feed and to thrive on it. The boiled weeds were, she thought, worth as much as the same bulk of boiled potatoes. Of course, I wait-

ed on the pig while at dinner, and found both an appetite and rotundity that would do credit to a candidate for city aldermanship.

This was a new feed to me, and the experiment seemed successful. It can be no more work to boil the weeds than potatoes, and if they answer, any farmer has weeds enough about his premises to save not a little in raising his swine, besides benefiting his land, by boiling them up. J. H. A.

Hinsdale, N. H., 1858.

For the New England Farmer.

NEATNESS IN FARMING.

Mr. Editor:—I wish to speak of neatness in farming. I think this has been and is too much neglected by our farmers. It is just as important to be neat in farming as in any other branch of business; it is not only economical to be neat, but it shows a cultivated taste, which all can appreciate. How essential it is that the farmer should have a place for everything and everything in that place. Instead of throwing the plow and other farming tools down in the yard, they should be carefully laid away till they are wanted for use. How important it is that every farmer should strive to make home happy and pleasant. In setting out a few trees around his premises, they not only look handsome, but they afford a cool and refreshing shade on a hot summer's day, and thus tempt the farmer's sons to remain at home, instead of leaving their rural home for the city.

In travelling through Londonderry, N. H., a few days since, I noticed the neatest farm I ever saw, (the residence of Henry Crowell, Esq.;) everything around showed a mark of neatness. The land was well tilled and the buildings were well painted. This is economy in the farmer, as much as anybody else, for if his buildings are well painted it will cost but little to keep them in repair. The pig pens should be kept clean. It costs but little to whitewash out-buildings once a year. The farmer has plenty of days when he can do this, thereby adding much to the beauty of his premises, and the general health of all concerned. The winter's wood which is prepared for the fire, should not be suffered to lay all round, but should be carefully packed away, it will then be fit and ready for use.

Charles H. Rogers.

Concord, N. H., July, 1858.

Remarks.—We say "amen" to all this. Nearly every good farmer, now-a-days, has a double duty to perform. He is not only a farmer, but he is also *a teacher*. The men and boys he employs have little or no education, while some that they have acquired is more expensive than their ignorance. We do not intend to find fault with them, but only speak of them as they are. Their opportunities have been few among a people whose practices widely vary from ours, and upon whom the idea of *system* has not yet dawned. But is it not passing strange that any person of any name or nation, should not possess some faint idea, at least, of neatness and order? A good rule on the farm is this, viz.:—If any one uses an implement or tool for any purpose for which it was not intended, and breaks it, make him pay for it. For instance, if a man pries up a stone with a shovel (as is often done) and breaks it, he has used the shovel *instead of an iron bar*, and must pay damages,—and so of every other implement, or tool.

One may lift a hundred pounds of hay with a good three-tined fork, but if it is thrown only lightly upon the scaffold or barn-floor, it will fly like glass. It *was not made to be thrown down*, and has no power of resisting such a strain. If every tool on a good-sized farm were always clean and in its place when not in use, it would be worth the interest of two or three hundred dollars annually, to most farmers.

Nothing will touch them but to *make them pay when they break tools carelessly.*

COMPOSTS—MUCK AND ASHES.

A few weeks since we put the question: "Got any ashes?" to our readers, and suggested some of the benefits following their use as a direct application to the soil. Now, if they "have any muck," we would remind them of one of the forms of compost into which it may profitably enter. We take up this variety of muck compost, first, rather than that of muck and barn manure or other material, as on the whole more seasonable at present.

Muck, we remarked, only needs further decomposition by fermentation to convert it into a valuable manure, equal, according to Dana, to cow dung. Any alkali will do this, and ashes answer well the purpose.

A writer says, "To bring out the ammonia, the muck must be fermented, which may be effected by the use of alkalies. From fifteen to twenty bushels of ashes, or ninety pounds of potash, are required to a ton of peat. Such a compost will contain about the same amount of ammonia as cow dung. * * * A farmer in Watertown sells his cattle manure, and mixes the leached ashes from his soap and candle factory with muck, one part of the former to three of the latter, and thus keeps his farm in a high state of cultivation."

As to the quantity of ashes required for composting a cord of muck, no exact rule can be given, for some specimens will possess greater acidity than others, from less perfect decomposition, the character of the vegetation of which it is composed, or other varying causes. Experiment, however, will furnish a ready test of this question. Five bushels of ashes to a cord of muck, has been found sufficient; they should first be placed in layers, and afterwards completely intermingled by shoveling over at intervals. Twelve to fifteen loads per acre, will furnish a sufficient dressing for one season, though on soils lacking in vegetable matter, it should be repeated for several years.

Many experiments have shown the value of this form of compost, and we scarce need further to urge it upon our readers. To the many in all

sections of the country, who *can have muck for the digging* on their own farms, and whose daily fires supply ashes in considerable quantity, it would seem to be a most convenient and profitable method of increasing the stock of manure, and the consequent productiveness of their soils. It is well, if the muck is of a particularly raw character, to dry it for some time before composting, allowing it to be exposed to the air and frost over winter, but with many kinds this is not essentially necessary. In conclusion we would recommend a trial of composts of this character, as a top-dressing for dry grass lands, to be applied early in the fall. Finely pulverized as it should be, it will at once go to "the root of the matter," and prove no offence, either to grazing animals or the scythe and rake in after years.—*Country Gentleman.*

For the New England Farmer.

MR. MECHI AND HIS FARM.

MR. EDITOR:—You will judge whether a few extracts, taken promiscuously from a pamphlet, by J. J. Mechi, published in 1850, will afford your readers an instructive article at the present time.

It should be remembered that Mr. Mechi was not bred a farmer. He was and is still a London manufacturer; and, inasmuch as he keeps a large store for the sale of his wares, he is what would be denominated *a merchant.* If our mother tongue, as used on the other side of the water, in the shade of a less and less overshadowing aristocracy, would prefer the term *shopman*, that is no business of ours. As a merchant, Mr. Mechi would rank with our Lawrences, Appletons, and others of a similar stamp.

In the business of manufacturing goods and selling them, the world over, Mr. Mechi, I believe, became rich enough; and he must have found enough to do, at least enough for any ordinary man, though it would seem, not enough for him. The fact is, he carries a great deal of steam; and more than one safety-valve was wanting to let off the inherent energy of the man. Under the pressure of a business that would have quite satisfied most men—kept them out of mischief at least—Mr. Mechi took to farming.

A love of *notoriety* may have prompted him. If his birth was obscure, it was not necessary that his life should be, not even in old England; and who will blame him for wishing *to be known*, as the doer of good deeds? There is no virtue in being obscure; none in doing nothing; none in doing less than one has talent to do. But Mr. Mechi's hobby was not to be a *gentleman* farmer; he would be a *practical* farmer; would not create a sort of Baronial home on his farm, but repair the old buildings, with a decent regard to economy, and build such new ones as comported with comfort, utility and good taste; and thus create such an homestead as intelligent, working farmers may aspire to, both in that country and this. His hobby, as I suppose, was to test a principle. He believed that the application of capital and science to agriculture would cheapen production; he wished the experiment to be made, as it never had been made, *thoroughly*, *perseveringly*, and with exact accounts; and like an energetic, self-reliant, business man, he felt that he was the very man to make it—could carry it out a little better than any one else. He could furnish the capital. If there was loss, it would be his, and nobody should complain. If there should be a development of new and valuable truths, every body might profit by them.

But Mr. Mechi's position cannot be fully understood, without considering the political complexion of things, at the time when he turned farmer. Sir Robert Peel was experiencing about that time a most extraordinary conversion—was in a transition state, passing from the extreme of protection to be an ultra free trade man—had betrayed, or was about to betray, the landed aristocracy, as they chose to charge him. Hither it was enough for the English landholder, if he pocketed a heavy rent; and it would do very well for the tenant farmer if he took things lazily and raised a little food, because he was sure to get a good price for it. But now prices must come down; there would be competition; the Yankees, the Dutch, and who and what other races and tribes, would come in, and undersell the English farmer on his own soil. Alas! alas! if the people should once get a taste of cheap bread! It was not the nobility that bewailed thus—not they alone, nor peculiarly; the nobility of England, in part, and a large part, too, are *noble* men, at heart more democratic than thousands who fawn about them, willing that the people should have cheap bread and cheap bibles and cheap newspapers; disposed to give up every thing as far as consists with what they honestly believe necessary for the maintenance of their own rights and the greatest general good. But there was fogyism among the aristocracy; there was fogyism among the commoners; there was fogyism everywhere; just as there is among us, as fearful of cheap bread, cheap books, cheap anything except labor, as some of us are of cheap postage and liberty for negroes.

The deepest sorrows at Sir Robert's conversion—betrayal of his friends as they chose to style it—were of course felt by the landlords and the tenant farmers. They were sold out; going, *going*, GONE; dying, *dead, buried;* no, not buried, but afraid they should fail to be buried decently. Fogyism is alike in all countries. In reform, it sees nothing but impending ruin. In its bleared eye, all progress is reform; and is to be hated, slandered, talked down. To *lie* it down is no *sin.* Ninety-nine-hundredths of all the lying in the civilized world is by fogies against progressive men; and no matter what the proposed reform is, whether to give bread to all the people in England, or to give liberty to all the people in America. In Sir Robert Peel's day the landholders, with some noble exceptions, wanted protection, that they might secure high rents, and the tenant farmers wanted protection, that they might be sure of high prices for produce. Their heart's motto was, The government take care of us, and the devil take the hindermost. They compounded with conscience, by the promise of poorhouse soup, in extreme cases, that is, when the devil failed to teach the starving to live by stealing.

But there were progressive men in England then. There are more now, and there will be still more ten years hence. Progress in England will be a rich treat to republican eyes, and no

mistake. The progressive men said to the landed aristocracy: "No, you are not sold, you are not dead, we are not going to bury you, we shall not get rid of you so easily." Mr. Mechi and such men as he, saw that if the farmers could get but half as much for their *corn*, they could grow twice as much. They said to the grumbling, woe-begone farmer: "Wake up from the stupidity which the over-nursing of the government has induced." They said: "Let the landlord invest capital on his land, rendering it doubly productive; and then let the farmer go to work and raise double crops; for both will do well enough still, and the British poor will cease to need the charity of cargoes of American flour."

In this state of things it was, that Mr. Mechi commenced his experiment, to see whether the productiveness of land can be doubled, by a judicious outlay of capital; and whether it is possible that the British farmer can *live* by growing bread at such a price that British laborers can *live* by eating it. A magnificent experiment! A misfortune was, that education and previous business engagements had failed to educate him a farmer. He is too impulsive to wait, after a purpose is taken. Could he not farm, and learn to farm, at the same time? That is the only way for such a man. He took it; and like the early Methodist preachers who preached and prayed and learned to preach and pray all at once; studied rhetoric and practised it, all at the same riding, with wardrobe and library in the same saddle-bags; and became in most cases eminently useful men; so it has been with him.

Mr. Mechi purchased a farm of 170 acres in Kelvedon, Essex county, some forty miles from London, near the Eastern Counties railroad, of rather poor land, some of it very sandy, but more a heavy clay. The annual rental was valued at 12*s* (about $3) the acre. He went at it—at chemistry and clay, philosophy and sand, farming in all its departments, and learning some to farm. He soon became wise enough to teach every body; but not yet has he become too wise to be taught by every body, that understands the subject. In 1850, the rental of his farm was apprized at 36*s* (about $9) an acre. He had not only doubled, in the estimation of the judges, but had trebled the productiveness of the land. Mistakes he acknowledges he made, as any one would in a new employment, and the fogies laughed, but he corrected them the while, and went ahead. But now for the extracts. The opinions they imply may not all be correct, even in relation to English farming, and much less in relation to soil, climate and circumstances so different as ours. But are they not worthy the consideration of American farmers?

CAPITAL—ITS ORIGIN.

"The physical and mental powers of a nation form its original capital. It is labor, directed by the mind, that feeds and clothes us, and procures, for our social adjustment, the metals which form the accepted standard of our currency."

ROOM FOR IMPROVEMENT.

"The more numerous and concentrated the population, the more wealthy the nation, provided means are found for its employment. Can it be denied that we have yet, in this United Kingdom, a wide and untilled field for agricultural labor and investment? Look at our statistics of moor, bog and waste. O, but I am asked, can these be profitably reclaimed?

Request the poor peasant squatter to show you his cottage garden or allotment on such soils, and conviction will at once reach you."

CAN CAPITAL BE OBTAINED?

"I am asked, 'Where is the capital to come from for all these improvements?' I reply, Where *does* the capital come from to make railways and docks; to build steam-vessels; to erect a whole town of new squares and streets, and to carry out every other useful and profitable undertaking? I believe the surplus profits of the nation are estimated at fifty millions annually. Every ten years, this accumulated wealth has found vent in rash or dangerous speculations. Fortunately, foreign loans have been superseded by British railways; and I can perceive clearly, that the surplus gains of the present times are destined to pass into agricultural improvement."

DEEP CULTIVATION AFTER DRAINAGE

"Is essential to profitable farming on heavy lands. I effect this by removing the breast from a plow, and letting it follow, drawn by a pair of horses, in the track of the first plow. We thus gain a greater depth. In summer, I use a very large plow with four horses, to open the work, and follow with another plow and four horses in the same track. This brings up immense clods and blocks of the nasty, undisturbed subsoil. When dried by the sun, the Crosskill roller, with 5 cwt. added, cracks them; the scarifier operates, and again the Croskill renews the attack, all in dry, hot weather, until you have a perfect garden—yellow-looking, it is true, but aerated, and deprived of many noxious properties, and ready for mixing with abundant manure and calcareous matter. You thus bid adieu to root weeds that have tormented you for years; you facilitate the percolation of water, air, manure and roots. Your crops do not dry up in summer, or freeze in winter."

ARE EXHAUSTING CROPS TO BE AVOIDED?

"For my own part, I like a heavy exhausting crop. It implies a heavy return, with means for restoring the deficiency occasioned by it. Miserable crops, occasioned by the save-all and cheese-paring principle, cause us to feel severely the pressure of our rent, tithes and rates. They re-act on the landlord, laborer, tenant, and community at large."

HUSBANDING OF FEED.

"Experience has taught me, and will teach others, that in order to succeed in farming, we must produce a much larger quantity of meat on our farms than at present, and at less cost. In order to do this advantageously, it becomes necessary to consume a large portion of the straw of the farm, cut into chaff, and cook it with meal or ground oil-cake. We are thus deprived of the usual cattle bedding, and must find a substitute.'

"I believe it is the great quantity of stock kept, that enables the Lothian farmer to compete at so great a distance, with the south country farmer; and I believe it is the still greater quantity of stock kept by Mr. M'Culloch, of Auchness, that enabled him to surpass the Lothian

farmers. Mr. Lawes has shown most indisputably, in his admirable papers in the Royal Agricultural Society's Journals, that we can produce manure cheaper and better by feeding stock, than even by purchasing guano. I mean not feeding on turnips alone, but using the productions of the farm in conjunction with purchased food."

"Very much depends on the season and weather. In cold weather, pigs and bullocks can scarcely be packed too close, so long as there is room for them to lie down comfortably. Sheep require a little more room, or ventilation and temperature. This is best done by a thermometer, because our own feelings are not always a sufficient criterion. Every cattle-shed should feel as comfortably warm as a drawing-room. The opening for ventilation should be at the highest point.

"Fine bred pigs, having little hair, must have a much warmer temperature than sheep. When pigs huddle together, it is a sure sign that they are not warm enough. Cold, stopping the circulation in the skin, drives the blood to the internal organs, and causes inflammation.

"I have often been struck on seeing how soon my groom will get a horse into condition, by warmth, cleanliness and food."

AGRICULTURAL SCIENCE.

"The facilities for acquiring agricultural science, are now great. We have now the opportunity of rubbing mind against mind, and eliciting bright scintillations of intelligence. The priceless volumes of the Agricultural Society of England and Scotland, to which every farmer should belong, the agricultural press and periodicals, teem with novelty and science, and bear unquestionable testimony that the agricultural community can no longer be a non-reading class. The Royal Agricultural College at Cirencester, and other similar but minor establishments, invite the juveniles of agriculture to excel their parents."

CONCLUSION.

"Can it be possible that England, great in wealth, liberty and industry, superabundant in capital and labor, and superlative in manufactures and machinery,—I say again, can it be possible or permissible that Britain, with all these advantages, with merchant princes and baronial traders sweeping the seas, with her navy and merchant fleet, shall be humbly dependent for her daily bread on strange and foreign lands? I will never believe it can continue. I will never believe that British enterprise cannot and will not compete with the ill-fed vassalage of mere corn-producing countries. Countries whose people cannot afford to eat the wheat they send us, and whose agricultural practice, tested by our own, ranks low in the scale of comparative perfection. I cannot believe that our wealthy and patriotic aristocracy will any longer permit such an anomaly to continue.

Lastly, I commend to your especial regard the noble practice and improvement of agriculture, as beneficial to health, as conducive to longevity and mental repose, and as full of independence; presenting to your mind, through the charming and ever-varying face of nature, the impress of almighty Goodness and Wisdom. I commend it, not only on the low ground of individual profit, but, in virtue of its employing and feeding the people, as a means for promoting the moral, social and political strength of this great and happy nation."

For the New England Farmer.

THE BEE HIVE.

MR. EDITOR:—Any one who has not given attention to the subject would be surprised, upon inquiry, with the fact of the large number of "Patent Bee-hives" there is before the public, all claiming to be the "best hive out," with the "moth proof" thrown in. In a general way, Norfolk has expressed his opinion pretty freely on these, without any particular reference to any. Now in regard to hives—as with every other particular thing made to accomplish a particular purpose—some will be, and in the nature of things must be, better than others. As bee culture in this State is mostly, and will probably be in future confined to a few swarms—say under ten—to the individual, a good-looking and convenient hive will be used rather than the old-fashioned box, because in very many cases, bees are kept as much for the pleasure they afford as for the profit; they will give a large share of each if properly managed.

The requisites of what any kind of hive ought to possess I have heretofore stated, and now I wish to call the attention of the readers of the *Farmer* to the Union Bee-hive, invented and patented by Mr. G. H. Clark, of East Washington, N. H., and I do this not to advertise this particular hive—by no means. My advice is, before you purchase, examine all you can conveniently find, and hold fast to that which is good. I have tested this Union hive along with Mr. Langstroth's movable comb hive, the two patents which now seem to take the lead in this region, and the Union is decidedly the best hive for all practical purposes; and if, as is stated, Mr. Langstroth has borrowed the only good thing there is about his hive from the Union, and gets cut off from its use in making his hive by the patent—his hive is good for nothing.

I do not know as you allow one to express his opinion so freely as I have—nevertheless I think truth is on my side. I have no interest whatever in any hive that has patent attached to it; but if any one feels interested enough to call at my place, I will shew him the difference between some half dozen patent hives, and how the *bees* themselves work in the Union. NORFOLK.

King Oak Hill, April, 1858.

THE COW-FISH OF SOUTH AMERICA.

One day, the fishermen brought us a fine "Poixe boie," or cow-fish, a species of manatus, and is particular abundant in the lakes in this part of the river. It was a female, about six feet long, and about five feet in circumference through the thickest part. The body is perfectly smooth, without any projections or inequalities, gradually changing into a horizontal semicircular flat tail, with no appearance whatever of blind limbs. There is no distinct neck; the head is not very large, and is terminated by a large mouth and fleshy lips, somewhat resembling those of a cow. There are stiff bristles on the lips, and a few distantly scattered over the body. Behind the

head are two powerful oval fins, and just beneath them are the breasts, from which, on pressure being applied, flows a stream of beautiful white milk. The ears are minute holes, and the eyes very small. The color is a dusky lead, with some large pinkish white marbled blotches on the belly. The skin is about an inch thick on the back, and a quarter of an inch thick on the belly. Beneath the skin is a layer of fat of greater or less thickness, generally about an inch, which is boiled down to make oil used for light and for cooking. The intestines are very voluminous, the heart about the size of a sheep's, and the lungs about two feet long and six or seven inches wide, very cellular and spongy, and can be blown out like a bladder. The skull is large and solid, with no front teeth; the vertebræ extending to the very tip of the tail, showing no rudiments of posterior limbs; the fore limbs, on the contrary, are very highly developed, the bones exactly corresponding to those of the human arm, having even the five fingers, with every joint distinct, yet inclosed in a stiff, inflexible skin, where not a joint can have any motion. The cow-fish feeds on grass at the borders of the rivers and lakes, and swims swiftly and paddles; and though the external organs of sight and hearing are so imperfect, yet these senses are said by hunters to be remarkably acute, and to render necessary all their caution and skill to capture the animals. They bring forth one, or rarely two, young ones, which they clasp in their arms, or paddles, while giving suck. They are harpooned, or caught in a strong net, at the narrow entrance of a lake or stream, and are killed by driving a wooden plug with a mallet up their nostrils. Each yields from five to twenty-five gallons of oil. The flesh is very good, something between beef and pork, and this one furnished us with several meals, and was an agreeable change from our fish diet.—*Travels on the Amazon.*

BRILLIANT STUCCO WHITEWASH.

Many have heard of the brilliant stucco whitewash on the east end of the President's house at Washington. The following is a recipe for it, as gleaned from the *National Intelligencer*, with some additional improvements learned by experiments:

"Take half a bushel of nice unslaked lime, slake it with boiling water, cover it during the process to keep in the steam. Strain the liquid through a fine sieve or strainer, and add to it a peck of salt, previously well dissolved in water; three pounds of ground rice, boiled to a thin paste, and stirred in boiling hot; half a pound of powdered Spanish whiting, and a pound of clean glue, which has been previously dissolved by soaking it well; and then hanging it over a slow fire, in a small kettle with a large one filled with water. Add five gallons of hot water to the mixture, stir it well, and let it stand a few days covered from the dirt.

It should be put on right hot; for this purpose it can be kept in a kettle on a portable furnace. It is said that about a pint of this mixture will cover a square yard upon the outside of a house if properly applied. Brushes more or less small may be used according to the neatness of the job required. It answers as well as oil paint for wood, brick or stone, and is cheaper. It retains its brilliancy for many years. There is nothing of the kind that will compare with it, either for inside or outside walls.

Coloring matter may be put in, and made of any shade you like. Spanish brown stirred in will make red pink, more or less deep according to the quantity. A delicate tinge of this is very pretty for inside walls. Finely pulverized common clay, well mixed Spanish brown, makes reddish stone color. Yellow ochre stirred in makes yellow wash, but chrome goes further and makes a color generally esteemed prettier. In all these cases the darkness of the shades of course is determined by the quantity of coloring used. It is difficult to make rules because tastes are different; it would be best to try experiments on a shingle and let it dry. We have been told that green must not be mixed with lime. The lime destroys the color, and the color has an effect on the whitewash, which makes it crack and peel.

When walls have been badly smoked, and you wish to have them a clean white, it is well to squeeze indigo plentifully through a bag into the water you use, before it is stirred in the whole mixture. If a larger quantity than five gallons be wanted, the same proportions should be observed.

THE USE OF HAY CAPS IS PRACTICAL ECONOMY.

On Tuesday, the 20th July, we struck into a three-acre field covered with a heavy stand of oats, which were to be cut and cured for fodder. A small portion of them had lodged. Enough of them were cut in the morning to make fifty large cocks, were left in the swath until just at night, when they were turned directly upside down, and remained in that position until the next day, Wednesday, when they were carefully spread, and before five o'clock in the afternoon, were all put up in large cocks, and covered with caps or covers, each two yards square.

During Wednesday night there was a heavy rain, accompanied with considerable wind, so that cocks not covered were pretty thoroughly drenched on Thursday morning.

On removing the caps from those that were covered at 10 o'clock on Thursday morning, the top of each cock was found so dry as to rustle like well-made hay, and was in good condition to go directly to the barn,—and no part of the cock was wet excepting a little on the outer edges of the base of the cock. The whole was then spread and carefully tended until quarter before twelve, when "thunder-heads" began to make their appearance in the West, and were soon followed by deep-toned rumblings in the far distant horizon.

At a little past one the oats were in the barn, dry, bright and sweet; the wind suddenly changed from the south-west to the north, and a drenching rain followed, which continued through most of the afternoon.

Each cock of the oats thus secured contained at least 200 pounds. If they had not been covered they could not have been sufficiently dried to go in between the time of spreading in the morning, and the time of the storm, which came on at a little past one, and it is a fair value we think to say that they were worth 80 cts. a hundred, and would have depreciated to 60 cts. if they had been wet again.

If this is right—and we believe every candid mind will concede it—the caps used for covering this crop, and which cost just 40 cts. each, were *entirely paid for in this single use of them.* There is no doubt whatever in our mind but such is the fact, and that hereafter we shall have the benefit of them as long as they shall last, without any cost whatever.

Hay caps will be nearly as common by-and-bye as hay cocks in haying time, merely because farmers will find out that *they cannot afford to do without them.* Of course, there will be some timid and scrimping geniuses that don't usually wake up till the next day, who will denounce the use of hay caps. That is all well enough with them, however, for if they had them, they would never find time to put them on.

BUTTER PASTURES.

There is a neglect in many of us in regard to pastures of any kind, and a serious neglect in regard to the pasturing for milch cows. With too many of us, if the herbage in a pasture comes up green in the spring, and continues so through the summer, it is a pasture. No matter what the kind of grass or herbage it is that gives the green color to the face of it, we turn in our cattle and let them "take chance," as the Irishmen say. Now the cow if she could speak would tell you in strong language, that every green field is not a pasture for her. Indeed, she does tell you every day in the quantity and quality of her milk, and in the quality of her butter and cheese, what the character of the pasture is.

The cow is an *animo chemico* manufacturer. Her duty is to manufacture the food that you supply her with into milk, butter, cheese, &c. According to the quality of the raw material given, will be the quality of the product. Oftentimes the poor cow is blamed and considered good for nothing, when her owner is to blame for supplying her with good for no hing material from which to make the product required.

A little observation will convince any one of this fact. In some rough pastures it is difficult to make much improvements or changes, but yet much can be done by the use of plaster, bone-dust, &c., and by scattering occasionally the seed of the best kinds of grasses.

Mr. Dickinson in an address delivered before the Tioga Agricultural Society in Pennsylvania, said, the "first quality of butter land is confined to portions of New England, New Jersey, and Pennsylvania and New York, while cheese and sheep can be grown wherever grass grows.

For this you must have in your pastures, Timothy (Herdsgrass,) white clover, blue grass, [what we call June grass.—ED.] red-top, pure soft water, and a rolling or hilly country. There will be then (when swarded over,) a solidity and sweetness to the grass, that will give to the butter that rich, sweet flavor that makes it so desirable. Butter partakes not only of everything the cow eats and drinks, but of every offensive thing within its reach after it is made."

He also advances the theory that butter made from red clover fed to cows, is good when first made, but when laid down in packages six months it seems to lose its flavor, and becomes more or less rancid, according as the clover she eat was rank and of rapid growth or not.—*Maine Farmer.*

EXTRACTS AND REPLIES.

OPERATION OF MOWERS.

Last week I saw four of these implements at work in the same field at the same time; with teams well trained and experienced guides. It appeared to be their purpose to show the comparative power of the machines. On looking at the ground on which they operated, after the crop was cleared away, the average width of the swath cut by each was found as follows:

Allen's	4 feet.
* Heath's	4½ feet.
Manny's	3½ feet.
Russell's	3½ feet.

One of the Manny machines was drawn a part of the time by a single horse, showing that the power necessary for the operation was at the command of the animal. I have heard of machines, designed to be drawn by single horses, cutting swaths three and three and a half feet in width, operating with entire success. Such a one is said to be made by Mr. Thompson, of Greenfield. I know a distinguished farmer who has ordered one for use on his own grounds, where I hope soon to see it in operation; for I have learned that actual view is the best evidence in these matters.

July 19, 1858. ESSEX.

* It is proper to say that the work done by the Heath or Eagle machine, was equal to that done by either of the others; while Allen's and Manny's machines were guided by men as expert at the business as any in the county.

POSTS FOR FENCES.

I wish to inquire about the best fence posts; where cedar cannot be obtained, what kind will last the longest—hemlock, black cherry, spruce, pine, cherry, beech, birch or maple?

W. C. WALKER.

Centre Rutland, Vt., July, 1858.

REMARKS.—Chestnut is undoubtedly among our best timber for fence posts. Cut it in September, take off the bark and set the posts on their ends, butt end down, and let them remain until the next spring. Then kindle a fire and char the end to be inserted in the ground, taking special pains to char two or three inches of the part that is to remain *out* of the ground. Good posts, say six inches in diameter, will last from twenty to fifty years, according to the nature of

the soil in which they are placed. White oak will probably come next to chestnut. We have had no experience with other timber for the purpose of posts.

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HOW TO DESTROY SWEET FLAG.

I see by the weekly perusal of your paper that it is customary among quite a class of your readers to ask all manner of questions on various subjects relating to the farm. Now I do not recollect of your being troubled by any of this class of aspirants for notoriety or knowledge in this old town—the home of as persevering and energetic farmers as can be found in New England. But there is one thing that troubles us a little, and I doubt not that some of your readers in other localities are troubled in the same way—hence this query: *how shall we manage to kill out a troublesome weed known as the sweet flag?* We have plowed it and burned it, but to no purpose but to increase the evil. One of my neighbors suggests salt. What is your opinion?

Chelmsford, Mass., 1858. T. J. PINKERTON.

REMARKS.—We are glad to hear from Old Chelmsford—it has many excellent farmers. The fine market at Lowell, where those thousands of hungry girls are to be fed, has stimulated the Chelmsford people to marked improvements in the cultivation of the soil. But our friends have found no way yet, it appears, to destroy the sweet flag, *Acorus Calamus*, which grows so bountifully in wet places all over New England. Digging will not kill it, burning the surface will not, salt will not, unless large quantities are used, but *thorough draining will.* It loves water as much as an old toper dislikes it, and where water abounds, is as tenacious of life as a cat. But a *warm, dry, porous soil is contrary to its nature, and in such a place it will soon give place to sweet, nutritious grasses.*

—

THE CROPS IN BERKSHIRE COUNTY.

Our crops are uncommonly good. Grass more than an average crop. Corn is very promising. Rye, oats and wheat are remarkably good. Potatoes are uncommonly thrifty, and will in all probability be a large crop, unless the disease should destroy them. In my orchard and fruit yard, the apple and plum set well, but have most all been destroyed by a sting of some insect I have not been able to discover. Even those that remain on the trees have "the mark of the beast," and will be imperfect; there will be very little fruit in this section. JUSTUS TOWER.

Lanesborough, July 19, 1858.

—

PRESERVING CORN FODDER.

As the season for laying in a stock of fodder approaches, I will give you my experience in saving corn fodder. As soon as my corn is all glazed, I cut it up near the roots with a sickle, and before any rain falls on it, bind it and stook it up, in which situation I let it stand till the corn is sufficiently cured for husking, say two or three weeks; after husking I make a mow of my stalks, a laying of stalks, say a foot deep, then sprinkle on salt sufficient to preserve from mould, then another layer of stalks. In this way I preserve them almost as green as when cut. I feed them to cattle once or twice a day, and they will eat them up as clean as they would good hay. In this way a farmer can save more fodder than he is aware of. His cattle eat up the stalks clean, and keep sufficiently salted through the winter. Just try it once. M. DURFEY.

Bristol, Vt., July 10, 1858.

—

WHAT IS THE BEST METHOD OF DESTROYING CATERPILLARS?

Thus far I have cut off the infested part and thrown it into very strong soap suds, but this is taking too much of the tree away. I would throw soap suds on the tree, but I have found by sad experience that strong soap and the foliage were not made to live together. I shall be thankful to learn of some cheaper method of destroying this pest, and perhaps there are others who would be as thankful as myself. O. A. C.

Easthampton, Mass., 1858.

REMARKS.—There is no better, cheaper or quicker mode of destroying caterpillars on trees than by the use of a good spiral brush made for the purpose, and attached to a pole. Two brushes are convenient—one attached to a long pole for the high parts of the tree, and another for the lower parts—but this is a matter of convenience merely.

—

A COLT INJURED BY RUNNING.

I have a valuable colt that shows a propensity to run in the pasture, in consequence of which he has injured one of his gambrel joints, and caused a puffy swelling on the joint, that resembles a spavin on the front side, and causes a large puff on each side where the skin meets between the joint and gambrel cord. I wish to inquire if you or any of your subscribers can inform me whether it is a spavin or not, and what remedy to apply. I am now bathing with cold water, and George W. Merchant's Gargling Oil. H. S. G.

West Bethel, Vt.

REMARKS.—If we had such a case we should consult Dr. G. H. DADD, Veterinary Surgeon, Boston.

—

BLACK POLAND FOWLS.

Can you inform me where I can obtain pure Black Poland Top-knot fowls, at a fair price?

Stafford, Vt., July, 1858. S. A. E.

REMARKS.—We cannot—do not know.

—

SURE CURE FOR COUGH IN HORSES.

Bleed in the neck three mornings in succession, three pints at each time. Try it.

Concord, Mass. F. E. BIGELOW.

—

GRUBS.

We do not recognize the grubs sent us by Mr. Broadhurst, of Bridgewater.

THE BLOOD.

It is a natural question, and often asked, but difficult to answer, what *quantity* of blood circulates every minute in our bodies? The many estimates which have been made need not here be given; only those of Lehmann, Weber and Bischoff now command general attention. Lehmann says that his friend Weber aided him in determining the quantity of blood in two decapitated criminals. The weight of the whole blood was to that of the body nearly in the ratio of 1 to 8. It is obvious from the account of the experiment that only an approximation could be arrived at. And Bischoff's more recent investigations on the body of a criminal, carefully weighed before and after decapitation, lead to the conclusion that the blood amounted to 9¼ lbs., or *exactly one-fourteenth of the whole body.* This nearly corresponds with his former investigations, which gave the weight as one-thirteenth of the whole body. If we say ten pounds for an adult healthy man, we shall probably be as near the mark as possible. The quantity, however, necessarily varies in different persons, and seems from some calculations to be greater in women than in men. In the seal its quantity is enormous, surpassing that of all other animals, man included.

In former days, blood-letting was one of the "heroic arms" of medical practice; and it is sometimes almost appalling to read of the exploits of practitioners. Haller mentions the case of a hysterical woman who was bled one thousand and twenty times in the space of nineteen years; and a girl at Pisa is said to have been bled once a day, or once every other day, during several years. A third case he mentions of a young man who lost seventy-five pounds of blood in ten days; so that if we reckon ten pounds as the utmost which the body contains at any given period, it is clear that this young man's loss must have been repaired almost immediately. In truth, the blood is incessantly being abstracted and replaced during the ordinary processes of life.—Were it not continually renewed, it would soon vanish altogether, like water disappearing in sand. The hungry tissues momently snatch at its materials as it hurries through them, and the active absorbents momently pour fresh materials into it.

In contemplating the loss of blood from wounds or hæmorrhage, and in noting how the vital powers ebb as the blood flows out, we are naturally led to ask whether the peril may not be avoided by pouring in fresh blood. The idea of *transfusion* is indeed very ancient. But the ancients, in spite of their facile credulity as to the effect of any physiological experiments, were in no condition to make the experiment. They were too unacquainted with physiology, and with the art of experiment, to know how to set about transfusion. Not until the middle of the seventeenth century had a preparation been made for such a trial. The expemiments of Boyle, Graaf and Fracassati, on the injection of various substances into the veins of animals, were crowned by those of Lower, who, in 1665, injected blood into the veins of a dog. Two years later a bolder attempt was made on man. A French mathematician, Denis, assisted by a surgeon, having repeated with success the experiments of Lower, resolved to extend the new idea. It was difficult to get a human patient on whom the plan could be tried; but one evening a madman arrived in Paris quite naked, and he was daringly seized by Denis as the fitting subject for the new experiment. Eight ounces of calf's blood were transfused into his veins. That night he slept well. The experiment was repeated on the succeeding day; he slept quietly, and awoke sane!

Great was the sensation produced by this success. Lower and King were emboldened to repeat it in London. They found a healthy man willing to have some blood drawn from him, and replaced by that of a sheep. He felt the warm stream pouring in, and declared it was so pleasant that they might repeat the experiment. The tidings flew over Europe. In Italy and Germany the plan was repeated, and it now seemed as if transfusion would become once more one of the "heroic arms" of medicine. These were soon dashed. The patient on whom Denis had operated again went mad, was again treated with transfusion, and died during the operation. The son of the Swedish minister, who had been benefited by one transfusion, perished after a second. A third death was assigned to a similar cause; and in April, 1668, the Parliament of Paris made it criminal to attempt transfusion, except with the consent of the Faculty of Paris. Thus the whole thing fell into discredit, to be revived again in our own day, and to be placed at last on a scientific basis.

It will immediately occur to the physiologist who reads the accounts of these experiments, that transfusion was effected on the supposition that the blood of all quadrupeds was the same, and that it was indifferent whether a man received the blood of another man, or of a sheep or calf. This supposition was altogether erroneous. The more rigorous investigations of the moderns have established that only the blood of animals of the same species can be transfused in large quantities without fatal results. The blood of a horse is poison in the veins of a dog; the blood of a sheep is poison in the veins of a cat; but the blood of a horse will revive the fainting ass. From this it follows, that when transfusion is practised on human beings, human blood must be employed; and so employed, the practice is in some urgent cases not only safe, but forms the sole remedy. Blundell has the glory of having revived and vindicated this practice, and he has seen his idea amply confirmed. Berard cites fifteen distinct cases of hæmorrhage in which tranfusion has saved life.—*Blackwood's Magazine.*

THE ADVENTURES OF A SEED.

Nature has arranged that plants growing even in the burning desert shall be provided with enough of water for the generation of their seeds; and one of the most remarkable instances of this fact is furnished by the Anastatica Hierochuntica, or rose of Jericho, which grows in the arid wastes of Egypt, Palestine and Barbary; upon the roofs of houses and among rubbish in Syria; and in the sandy deserts of Arabia. This little plant, scarcely six inches high, after the flowering season loses its leaves, and dries up into the form of a ball. In this condition it is uprooted by the winds, and is carried, blown, or tossed across the desert into the sea. When the little plant feels the contact of the water, it unfolds itself,

expands its branches, and having become thoroughly saturated with sea water, are carried by the tide and laid upon the seashore. From the seashore the seeds are blown back again into the desert, where, sprouting roots and leaves, they grow into fruitful plants, which will in their turn, like their ancestors, be whirled into the sea. These regular periodical processes of the life circle of this wee rose struck the simple imaginations of the men of old with superstitious awe, and they invested it with miraculous virtues.—*Dicken's Household Words.*

For the New England Farmer.

TEN PER CENT. INCOME IN FARMING!

The agriculture of New England is now a matter of much thought and discussion, and very reasonably, too. A new era has dawned upon farmers within twenty years. Science and elaborate theory, submitted to the test of experience, have come to the aid of the blind, traditional routine, which, half-guess work and half-careless and unreasoned experiment—formerly regulated the practice of agriculturists. Our farmers have learned that books as well as works have their province and their value. A long and distrustful observation has taught them, that *book farming* may instruct and aid *practical skill*, although it is not sufficient to supersede it. They know now, that the chemist in his laboratory, the natural philosopher in his study, and the botanist on his rambles, to some ignorant wiseacres unmeaning, are all at work for him. Theory and practice, after a coy courtship and interminable quarrels, are now comfortably wedded, and the results of the whole will be—Order from chaos, intelligent and educated system from blind groping, clear, determined and well calculated processes in lieu of random ventures or apathetic fogyism. Our climate is rough, our soil hard. Among our products are not the rich and luxurious harvests that have always typified agricultural wealth. We cannot grow the olive, the orange or the vine—the great staples of rice, cotton, tobacco or sugar. *We do not grow*, (I will not say we cannot, for I know better by actual trial) the wheat, the queen of breadstuffs. Yet New England is or may be, if she chooses, the wealthiest, happiest and most truly comfortable country on the face of this earth. This comes about from careful, intelligent, well directed and energetic industry. Apply to our farming the system which has placed our manufactures and commerce where they are; and we need envy the harvests of no country, however favored by nature. Where nature does most, perverse man always does least, and the hard conditions she imposes upon us bring a blessing with them—the priceless gift of an invincible perseverance and an intelligent and restless energy that overrules all obstacles.

My purpose at present is, however, not to write an essay, but simply to state an encouraging fact. No man, who carefully examines, will conclude that agriculture is necessarily unprofitable here. If we adapt our system to circumstances, and philosophically and carefully follow it out, we can satisfy every reasonable desire.

Now for the fact, which I would reccommend to the attention of our young men who are sighing for Western prairies or other El Dorados.

Four years ago I purchased a farm of 33 acres, of good land naturally, but neglected for a long while, and in low condition. For three years, it was highly manured and carefully cultivated, and three-fourths of the arable land—one-fifth of the farm being in wood, is now brought up into good heart.

Last year, we grew upon it corn, onions, carrots and some small vegetables, and part of the land, which had been laid down to grass, came into full perfection for the first time. Our crops were all good, except potatoes, which were very light, but none of them very remarkable. I have kept a careful account with the farm; and I find that last year it paid just about ten per cent. net income, all expenses paid—upon its cost. Yet one-half of the estimated value is in buildings; and full one-fourth of the cultivable land is yet worn out and neglected grass land, which we have not yet been able to take in hand. I cannot take to myself much of the credit of the good husbandry. I am a professional man, with enough of other matters to occupy my time. But I was fortunate in the services of a thorough, practical, economical and energetic farmer. To him—Mr. LUKE PUTNAM, the result is due; for I was able to exercise only a slight general supervision.

We tried no extra schemes, and had, in no crop, any extraordinary success. If any deduction should be made tending to reduce the proceeds of this year's work to an average of a greater length of time, it could be found only in one fact. And that is, the high condition from generous cultivation of preceding years of much ground, which being then laid down to grass, gave us handsome returns with small outlay. It is my deliberate opinion, that this farm, under judicious and careful management, can be made to pay regularly an interest of eight per cent. It should be stated, however, that it contains no waste land, and is well situated, being about four miles from Salem, two miles from South Danvers, and fourteen from Boston, with good railroad facilities. It is, therefore, convenient for obtaining manure and disposing of crops. How many better chances of independence and thrift could a young man find any where? GEO. H. DEVEREUX.

Salem, Mass., 1858.

CURRANT WINE.

This article, as usually manufactured, is rather a cordial than a wine, and is entirely inferior to the commonest imported wine; but when properly made, it will be found to be a very superior, healthful beverage, particularly for summer drink, when fully diluted with water.

We have experimented carefully on the making of currant wine, and the following will be found to give a result which we have found no difficulty in selling in large quantities at $1 per gallon.

Before expressing the juice from the currant, pass them between a pair of rollers to crush them, after which they may be placed in a strong bag, and they will part with the juice readily by light pressure, such as a common screw, heavy weights, &c. To each quart of juice add three pounds of double refined loaf sugar—single refined sugar is not sufficiently pure—then add as much water

as will make one gallon. Or in other words, suppose the cask intended to be used to be 30 gallons. In this put 30 quarts of currant juice, 90 lbs. of double refined sugar, and fill the cask to the bung with water; roll it over until the sugar is all dissolved. This will be told by its ceasing to rattle in the barrel. Next day roll it again, and place it in a cellar where the temperature will be sure to be even. Leave the bung loose for the free admission of air. In the course of one, or two or three days, fermentation will commence. By placing the ear to the bung-hole, a slight noise will be heard such as may be observed when carbonic acid is escaping from champagne or soda water. Fermentation will continue for a few weeks, converting the sugar into alcohol. As soon as this ceases, drive the bung in tightly, and leave the cask for six months—at the end of which time the wine may be drawn off perfectly clear, without any excess of sweetness.

The reason why double refined sugar should be used may thus be understood. Ordinary sugar contains a half of one per cent. of gum, which, when dissolved in water, becomes fetid. Suppose, then, four, or five ounces of gum dissolved in a barrel of water, we can readily understand that at the end of a few months this water will be very foul in flavor; and most of the currant wine offered for sale, made from loaf sugar of common quality, and often from sugar very inferior to this, such as white Havana, &c., contains gum in this fetid condition, and its foul flavor is an amalgamation of sugar, currant wine and fetid gum. When double refined sugar is used, all these difficulties are avoided.

No alcohol should be added. The practice of putting in small quantities of brandy and other liquors, makes a cordial, and not a wine. All the sugar used may be so much fermented as at least to change its character chemically, and this change will produce all the alcohol required.—*Working Farmer.*

For the New England Farmer.

MOWING MACHINES.

MR. EDITOR:—"Essex" says, in the *Farmer* just come to hand, "there is reason to believe that the principle on which the Heath mower is constructed, will be found the very thing that is needed. I wish he had been more explicit in the description of the principle to which he refers; and which distinguishes it from Allen's or Manny's machines, if there be any such principle. I have seen them all operating in the same field, at the same time; and seen the ground where they had operated; and the only dintinction I could observe on the ground was, that the swath cut by the Heath was from six to nine inches wider than that cut by either of the others. On inquiry of those who guided them, each gave the preference to the machine he guided.

The Allen machine appeared to me the most compact, and easiest guided, and least likely to get out of repair. I am informed by an industrious farmer of this neighborhood, that he has already cut three hundred tons of hay this season, with his Allen machine, without incurring one dollar expense for any repairs, other than the ordinary sharpening of the knives, such as is applied in the grinding or whetting of scythes This would seem to be a near approah to complete work, in the cutting of grass. I admire the facility with which it could be thrown out of gear, by the application of the hand to a lever in front of the driver. It seemed to me, other things being equal, this appendage gave it a decided preference over either of the other machines. But it may be, a skilled mechanic can discover in the others something to counterbalance this advantage.

If we are to have such a continued superabundance of wet as we have had for a fortnight past, it will be of little use to grow hay or to cut it, for it will be worth little or nothing when cured, under such influences. A. B.

July 24, 1858.

THE CULTURE AND HARVESTING OF BEANS.

It may, perhaps, be received as an indication that the bean loves a rather dry and warm soil, because it is a native of far eastern and warm countries, as it was cultivated in Egypt and Barbary in the earliest ages of which we have any records. The bean is now in very common use as food for man, and is frequently found in one form or another, on the tables of all classes of people in our country, and the demand for them, we think, is perceptibly increasing. Their proportion of nutritive matter, compared with other grain, is, according to Einhof, as follows:

	By weight.	*Or in a bushel.*
Wheat	74 per cent.	about 47 lbs.
Rye	70 "	39 "
Barley	65 "	33 "
Oats	58 "	23 "
Beans	68 "	45 "
Peas	75 "	49 "
French Beans	84 "	54 "

In England, large varieties of beans, such as the *Flowering Marsh*, for instance, are raised in quantities, ground into meal, and fed to horses; indeed, they compose the principal food of the farm and team horses. This practice has not found favor in this country yet, probably from the want of some one or more to lead in it. In the former country, bean meal, given to oxen, is supposed to fatten them rapidly, and mixed with water, and given as a drink to cows, greatly increases their milk. With this declaration, and their long and multiplied instances of experience before us, ought we not to experiment for ourselves in this matter, and learn whether we cannot fatten our stalled cattle to better advantage on bean meal, or partially so, than to feed them exclusively on corn meal?

The idea is certainly common with our people, and is illustrated in thousands of instances every year, that beans do not require a rich soil, and we therefore see them all over New England, at least, growing on the lightest lands of the farm, such as plains, or very light loams. It is s· pposed by many that they will actually do better on such

soils than on heavier ones, while others put them there, thinking them a more suitable crop than Indian corn or the smaller grains.

This is not the opinion of the English farmers; they say that "all the varieties thrive best on strong clay soils, heavy marls, and deep loams of a moist description. In such soils the produce is sometimes *thirty* to *sixty* bushels per acre, but an average crop on moderate land is about half that quantity."

A common error with us in the cultivation of the bean, is crowding them too much. They require air, light and heat, to surround them freely, and in order to secure this they should be planted in rows about three feet apart, and the hills in the rows at least two feet apart. Some varieties, perhaps, requiring more room even than this, and some considerably less. They will not perfect themselves and yeild a profitable crop, when the leaves next to the stalk die early and drop off, as their loss deprives the plant of a portion of its energy to ripen the crop which it has set.

Another error is, the placing too much seed in a hill. This depends somewhat upon the variety, as the small white bean will permit more seed in the hill, than the dwarf horticultural, or some other varieties. Any person may decide for himself what is best in this particular by a few years' close observation.

Many good crops of beans are greatly injured in harvesting them. Few fields are rarely ready for gathering all at the same time. When the leaves begin to lose their green color, and the pods to turn gray, purple, or black, the cultivator should go among them and select such, pull or cut them up, and if there is a clear sun expose them to it for a few hours. A cheap and convenient way of curing them then, is, to set birch or other poles in the ground, whose branches have been mainly cut off, but leaving some six or eight inches in length attached to the main stem. Then surround these poles with the beans, laying the roots inside, and continue building up towards the top of the pole as far as is convenient, or laying on as much as the pole will sustain. In this way the beans and plants dry bright and sweet, leaving none of that musty flavor which is almost certain to follow where beans are cured on the ground, or thrown in masses upon walls, or rails put up for the purpose. In the use of poles, beans may be gathered before the vines have lost all their green appearance, and the beans themselves will afford a larger and better crop than if allowed to ripen upon the standing vines.

THE VEGETABLE CATERPILLAR.—A specimen of this very wonderful caterpillar was presented to the Banff Institution for Science. One half of it, strange to say, is animal, and the other vegetable. The thicker part, which is animal, has quite the appearance of an ordinary caterpillar, being about two inches in length—very much indeed like what is familiarly known in north country districts as the heather-worm. The vegetable part is like a root or stem, some three or four times the length of the animal, but scarcely one-third of the thickness.—*Banffshire Journal.*

For the New England Farmer.

SOW WINTER WHEAT.

While I am sure I am addressing a few of your farming readers upon my favorite farm topic, that have had the wisdom and perseverance to raise their own bread, I am quite as sure a great majority are yet slumbering, lest they should lose time and money in the attempt to raise wheat.

Every barrel of flour (which is cash on delivery) must remind the thinking farmer, that this is part and parcel of his own business. The question must naturally arise,—why should I be eating flour that my brother farmer raised two or three thousand miles from this? I can raise big crops of barley, oats and rye, why not wheat, the most needed crop of all, for my family's wants? Happy conclusion! I have long been faltering, have tried "Sorgho" experiments, "mulberry" experiments, and now, lastly, shall I try the great wheat experiment? Farmers, my word for it, it will bring honey to your hives.

Do not let the last week in August or the first week in September find you with less than four to six bushels of winter wheat in the ground. (Plenty of expresses in all directions to Boston, and abundance of seed wheat at the *Farmer* office.)

Sow early to insure you against winter kill, especially if on clayey, heavy soil. Do you ask a reason for this? I answer, it gets depth and strength of root, which anchors it fast in its bed; thawing and freezing will not throw it out. All that is gained in this fall's growth, by early sowing, is so much gained for an earlier summer harvest. Rust, your worst enemy, too often catches late spring wheat, always a precarious crop, and makes poor flour in comparison.

On good tillage land, wheat will do well. Cultivate and manure as you would for any grain crop. Lime or ashes are good to cultivate or harrow in. Use a cultivator or very light plow if possible, for covering. Pasture or mowing sod is good. My best crop was on mowing sward. Soak the grain in salt pickle, say twelve hours, and if weevil or insect eggs are deposited in the berry, as with the pea, it may prove of great benefit. Rake the grain in ashes while moist and it comes up very quick.

I hope to hear through your excellent paper, from those farmers who have not only been petitioners, "Give us this day our daily bread," but those who have been doers in a work so easy of accomplishment, so needful to their wants, so indispensable to every free-holder and farming household in the New England States.

Mr. Editor, do you believe the soil of New England lacks any of the vegetable elements necessary to produce wheat? If not, and should there be a general interest felt and adopted by the far-

mer, as with his other crops, would not the whole list of agriculture be complete in your land? This, in addition to your perfect science and high attainments in horticulture, would put you far in advance of any other portion of our country.

New York, July 24. HENRY POOR.

REMARKS.—We are happy to be able to encourage our earnest friend, and friend of all farmers, by saying that his preaching and practice have encouraged a great many to try a crop of winter wheat. Fields of it are often seen now where it has never been attempted until recently. We hope the good advice given by Mr. POOR will be well considered. He is a practical man, and speaks of what he has done with the wheat crop himself.

For the New England Farmer.

STOOKING GRAIN.

In riding about the country just now while farmers are cutting their winter grain, I am reminded of an intention that existed too late to ripen last year. This was to call attention to the mode of stooking grain. In the showery weather of last year, I saw not a little grain greatly damaged for want of being properly put up. Now it is just as easy to put grain up in the stook so that it shall shed rain for a fortnight, as it is to set it up as it is often done.

The plan is this. I can vouch for its correctness, both from personal trial and from seeing grain stand, put up by my father, through weeks of dull weather, without hurt. The bundles should not be too large. Then ten and only ten should be put together. Select the two straightest and evenest bundles for the caps. Then of the others, take one in each hand by the tips, and chuck their butts firmly upon the ground about a foot apart. Bring the tips closely together. Put up four more in the same way, leaving a space of six inches between each couple. They will then stand in two parallel rows, three in a row. Now put one at each end, and bring the tops all closely together with the hands. They will stand thus:

* * * *
* * *

In this arrangement they will stand firmly, and the air will readily circulate between them. Now take the caps and slip the straw in the band so that it shall be shorter above the band where the cap is in place on the side of the tie. As the straw is rolled together in binding, it will readily separate at this place to the centre of the bundle. Having the hands in the bundle, place the upper part of the opening near the base on the end bundle below all the heads, and raise it carefully up till it covers half the stook. Do the same with the other, and bring the two inclined butts together in the centre of the stook. Now spread out the straw so as to cover the whole, and if you have done it well, you need not fear a long storm, for the stook will stand up and shed rain, while the interior will readily cure by the circulation between the bundles. It will be seen that in this way the outside of the stook is completely thatched by straw that meets in the middle and slopes off every way.

If this is a long description, Mr. Editor, bring on your grain, and I'll put it up in half the time I have been writing this. J. H. A.

Hinsdale, N. H., 1858.

CORNFIELDS.

When on the breath of autumn breeze
From pastures dry and brown,
Goes floating like an idle thought
The fair white thistle-down,
O, then what joy to walk at will
Upon the golden harvest hill!

What joy in dreamy ease to lie
Amid a field new shorn,
And see all round on sunlit slopes
The piled-up stacks of corn,
And send the fancy wandering o'er
All pleasant harvest fields of yore.

I feel the day—I see the field,
The quivering of the leaves,
And good old Jacob and his house
Binding the yellow sheaves;
And at this very hour I seem
To be with Joseph in his dream.

I see the fields of Bethlehem,
And reapers many a one
Bending unto the sickles' stroke,
And Boaz looking on;
And Ruth, the Moabite so fair,
Among the gleaners stooping there.

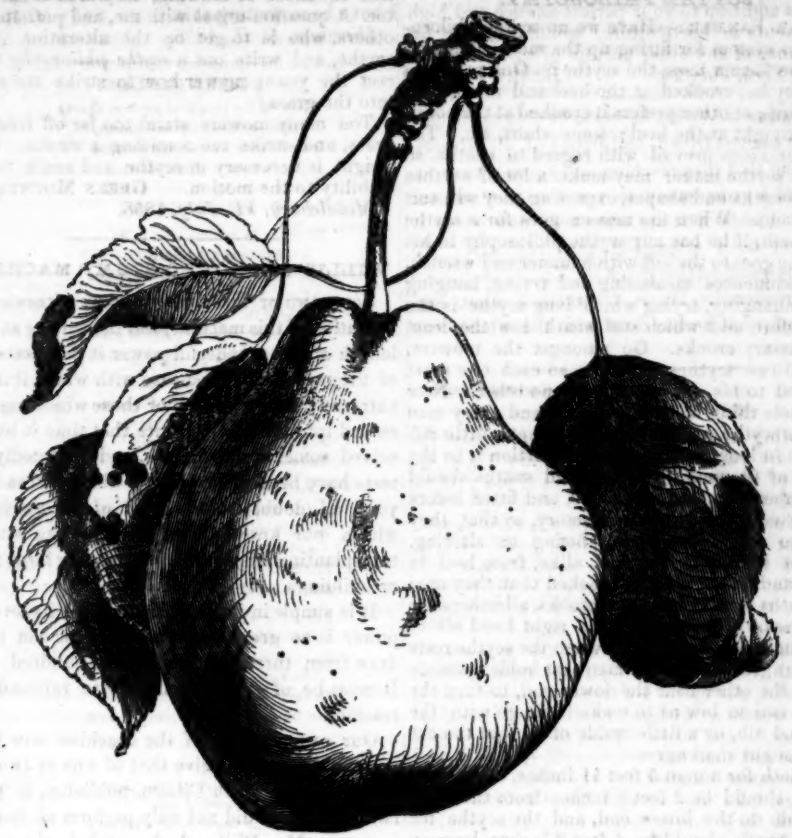
Again I see a little child,
His mother's sole delight,
God's living gift unto
The kind, good Shunamite;
The mortal pangs I see him yield,
And the lad bear him from the field.

The sun-bathed quiet of the hills;
The fields of Galilee,
That eighteen hundred years ago
Were full of corn, I see.
And the dear Saviour takes his way
'Mid ripe ears on the Sabbath day.

O, golden fields of bending corn,
How beautiful they seem!
The reaper-folk, the piled-up sheaves,
To me are like a dream.
The sunshine and the very air
Seem of old time and take me there.

THE HORTICULTURIST.

This time-honored, instructive and popular periodical, is now published by C. M. SAXTON, Esq., 25 Park Row, New York city. After a long, useful and successful career in book publishing, and a *pioneer* publisher of agricultural works, Mr. Saxton retired for a while to the fresh fields of his farm in Orange, N. J., to recuperate his energies by stirring the soil and new mown grass, and breathing the pure air away from city life. But the old love came back to him, after a brief repose with his family and his heifers and pigs and poultry, and he is now in his old line again, and sending out monthly the *Horticulturist*, in a most neat and attractive style, and is ready to serve his fellow-men in any honest way that will promote agricultural pursuits, but especially so, in *publishing* agricultural works.



THE GLOUT MORCEAU PEAR.

[*Pronounced* GLOO-MOR-SO.]

The pear which this beautiful cut illustrates, grew in the garden of Mr. HENRY VANDINE, of Cambridgeport, Mass., a cultivator of fruits and flowers well known to this community as a successful grower of some of the finest specimens of fruits which have been presented at the exhibitions of the Massachusetts Horticultural Society.

The specimen we now represent by the cut grew on a tree *twenty* years old, having *quince roots only*, and is now about six inches in diameter. In the month of December, or January, when the Glout Morceau is in perfection, Mr. Vandine has frequently received between two and three dollars per dozen for it, and finds the market quick. The description below is by Downing.

The Glout Morceau is universally admitted to be one of the most delicious of the recent Flemish winter pears; and as it is perfectly suited to our climate, bearing excellent crops, it should have a place in every good garden. It has been confounded with the Beurre d'Aremberg, but is readily distinguished from that pear by its sweeter, more sugary flavor, more oval figure, and more slender stalk. The growth of the tree is also distinct, having dark olive shoots, spreading and declining in habit, with wavy leaves.

The signification of Glout Morceau is *greedy morsel*; but Mr. Thompson suggests that this or the synonyme Goulu Morceau is used (in the same sense as *pois goulu*, i. e. sugar peas,) to signify honied or sugar pear, which is most appropriately applied to the present fruit.

Fruit rather large, varying in form, but usually obtuse-oval, and wider towards the stalk than Beurre d'Aremberg. Skin smooth, thin, pale greenish-yellow, marked with small green dots, and sometimes with thin patches of greenish-brown. Stalk rather slender and straight, an inch or more long, planted in a small, regular cavity. Calyx usually with open divisions, set in a moderately deep basin. Flesh white, fine grained, and smooth in texture, buttery, very melting, with a rich, sugary flavor, with no admixture of acid. December.

For the New England Farmer.

SCYTHE PHILOSOPHY.

DEAR FARMER:—Have we no scythe philosophy, no system for fitting up the most important tool the farmer uses, the scythe? One prefers a long scythe, crooked at the heel and straight at the point; another prefers it crooked at the point, and straight at the heel; some short, &c. The same opinions prevail with regard to snaths, so that a scythe maker may make a lot of scythes of all lengths and shapes, expecting they will suit some one. When the mower goes for a scythe and snath, if he has any scythe philosophy in his head, he goes to the loft with hammer and wrench, and commences measuring and trying, hanging and unhanging, trying which long scythe is the crookedest, and which stiff snath has the least unnecessary crooks. Go amongst the mowers, and no two scythes are alike, so each one must get used to his own scythe, and no other. Now the whole thing is wrong. Each and every man needs a scythe and snath alike, except a little difference in length of geer, to proportion it to the length of the man. Scythes and snaths should be number one, two and three, and fitted before they leave the scythe manufactory, so that they will go together without fitting or altering. Scythes should be crooked alike, from heel to point, and be made more crooked than they are; the snaths should have two crooks, all others are unnecessary. A crook at the right hand nib to fetch the hands nearly level when the scythe rests upon the ground, and the man that holds it stands erect; the other near the lower end, to turn the edge down so low as to make it range with the left hand nib, or a little inside of it, that the cut and draught shall agree.

A snath for a man 5 feet 11 inches, or over, in height, should be 2 feet 8 inches from the right hand nib to the lower end, and the scythe for such a snath should be 4 feet 3 inches long on the edge before it is bent; the bend should be a circular bend till the edge in the middle is 6 inches from a right line with the edge at both ends.

No. 2 scythe, 2 feet 6 inches from lower nib to end of snath, scythe 4 feet edge, bent 5¼ inches, for men from 5 feet 8 to 5 feet 11.

No. 3, for short men and boys; snath 2 feet 4, scythe edge 3 feet 9 or 10 inches, crook in proportion to others.

The benefits resulting from such arrangements must be evident to all. One of our greatest difficulties arises from the weakness or elasticity of the snath. No man can mow fast or easy, with a scythe that springs, or tumbles in the grass. If the iron snath made by LAMSON, GOODNOW & Co., was bent as it should be, and the patent heel rigging left off, and a good wrought iron heel put in its place, it would be far superior to any thing of the kind. It is well known that there are certain men that can cut as much grass in one day as other men of equal strength can in two. That is owing to two things, namely; skill in rigging up the scythe, and second, in striking it into the grass. Some of the readers of your paper may recollect two men that mowed for Erastus Swift, of Addison, Vermont, in 1830, by the acre, and he paid them for mowing 7¾ acres a day, for every working day, till his hay was cut. Those men mowed with No. 1 scythes as above mentioned.

Now, if a little skill can save one-third to one-half the labor of mowing, 'tis worth looking after. A question arises with me, and perhaps with others, who is to get up the alteration in the scythe, and write out a *scythe philosophy* to direct the young mower how to strike the scythe into the grass?

Too many mowers stand too far off from the grass, and strike too rounding a stroke. Some weight is necessary in scythe and snath to give stability to the motion. GREEN MOUNTAIN.

Middlebury, Vt., July, 1858.

WILLIS' IMPROVED STUMP MACHINE.

Some two or three years ago we witnessed the operation of this machine, and then spoke at some length of the wonderful power it possesses, and of the great facility and ease with which it moves extremely heavy bodies, or those which are fast-rooted into the earth. Since that time it has received some improvements, and repeatedly new tests have been made with it, which places it beyond all doubt at the head of any machinery within our knowledge for extracting stumps, transplanting large trees, or removing large rocks or buildings.

It is simple in its construction, and its leverage power is so great that a single horse can easily draw from three hundred to five hundred tons. It must be of great importance to railroad contractors.

Our own opinion of the machine now being understood, we will give that of one or two others. The *Republican Citizen*, published in Maryland, says:—It did not only perform all that the inventor, Mr. Willis, had notified the public that it would, but executed its work in such a manner as to produce astonishment and delight; and the general impression was, that a resistance could scarcely be opposed to it that it could not overcome. Trees, stumps and rocks, were removed from the places where they have rested for centuries, with very little regard to their size or weight—the power seeming almost unlimited.

The *Philadelphia Public Ledger*, speaking of a trial of the Extractor near that city, says:—Two old chestnut trees, each one three feet in diameter, were removed in 8 minutes; one of them in 4½ minutes, by the aid of *six men*, and the other in 3½ minutes with two horses.

Mr. LEONARD WARD, of Orange, Mass., says:—I have recently moved a meeting-house in Orange the distance of 240 feet, on an inclined plane of 19 feet. The time occupied, in using Willis' machine, was one day. With the machine I turned the house one-quarter round. It was judged to weigh from 75 to 100 tons.

Some fifteen of these machines have been ordered from Chili, in Peru, where the article of fuel is extremely scarce and high, and an ordina-

ry stump is worth one dollar standing in the ground. During the dry season, which is one-half of the whole time, trees send their roots very deep into the earth, and until they had Willis' machine, it was next to impossible to avail themselves of them. But this powerful Extractor unearths them with ease, when they afford our neighbors, the Chilians, a considerable supply of fuel. Address W. W. Willis, Orange, Mass.

For the New England Farmer.

UNDERDRAINING.

For the purposes of draining, we may safely neglect the more particular geological classification of soils, and consider them only in two forms, pervious and impervious; soil through which water will readily pass, such as loam, sand and loose gravel, on the one hand, and that which retains it a great length of time, as clay, gravel cemented with oxyd of iron or hard-pan, on the other. The distance at which drains may be laid and do the best service at the least cost, depends in a great measure upon the kind of soil to be treated; and this point needs close attention,—for the cost of every drain laid more than is necessary, is thrown away; but it is on the other side, in laying too few drains, we are most likely to err; in which case, a much less return will be received, in proportion to the amount expended, than if the work is thoroughly done.

There is, in most cases, but little regularity in the strata of the subsoil, and the cuts often seen in works on draining, representing half-a-dozen different layers of soil all of the same thickness, and having the same inclination, are in a measure deceptive. I would not, of course, convey the impression that there is but little *general* regularity in the strata, but only that it is not so minute and certain in its regularity as to enable a person to know, from the strata shown by opening a single drain, that his entire field is of the same materials, lying in the same direction, and at the same distance from the surface, as that shown in the drain he has opened.

Each field should be carefully examined before draining, by an exploratory drain, or by trial holes, and the drains laid so as to cut the lowest point of a porous strata, and carry the water as quickly as possible from the land; for this purpose, in most cases, the drains should run on the line of steepest descent, as the sub-strata is more likely to crop out on the side of a hill, than to run down parallel to its surface, and if the drains run on the steepest descent they will tap and draw the water from each strata before it arrives at the surface, and the drains, having a greater fall than could be obtained in any other way, will discharge the water in the shortest possible time.

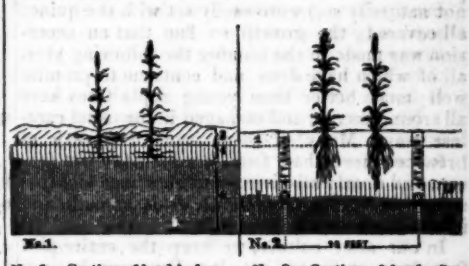
If, on making examination, it is found that the strata does run nearly parallel with the surface, the water will be collected better by drains laid on the half-rise; a very good fall can usually be secured for drains laid in this direction. The same field may need different treatment in different parts. Drains are sometimes laid across the slope, but they are, for various reasons, much less effectual than when laid on the line of steepest descent, or on the half-rise.

A drain, driven across the slope, may leave untouched a strata of porous material, which, cropping out a few feet below the drain, brings to the surface its collected waters, or if the drain cuts through the porous strata into a retentive one part of the way, yet the unequal thickness of the porous strata will carry a portion of it below the bottom of the drain, and water will be discharged at the surface as before; or, allowing neither of these cases to exist, but the bottom of the drain to be in a retentive strata throughout its whole length, yet the water will linger in the drain for want of a sufficient fall to carry it off, and lying against the lower side, will ooze through at points where the soil is less retentive.

Another reason why draining should run on the steepest descent, is, that all water lying on a level with the bottom of the drains can find an outlet into one or the other, by running a little more than half the distance between them, but in the case of drains across the slope, as the water acts only by gravity, none of it so situated as to depth can run into the upper drain, but all must find its outlet through the lower one, and half the water, in order to reach it, must travel from one-half to the full distance between the two. Water stands nearer the surface at a greater distance from the drains; therefore, in order to keep the water table at a proper depth, the drains across the slope must be deeper than if run on the steepest descent. In very steep lands the direction of the natural cracks is across the slope, and the steep drain, cutting through them, relieves them of their water.

A simple illustration will show the effect which stagnant water, within a foot or two of the surface, has on the roots of plants.

Perhaps it will aid the reader who doubts the benefit of thorough draining in case of drought, to see why it is beneficial.



No. 1.—Section of land before it is drained.

No. 2.—Section of land after it is drained.

In the first figure, 1 represents the surface soil, through which evaporation takes place, using up the heat which might otherwise go to the roots of plants; 2 represents the water table, or surface of stagnant water, below which roots seldom go; 3, water of evaporation; 4, water of capillary attraction; 5, water of drainage, or stagnant water.

In the second figure, 1 represents the surface-soil warmed by the sun and summer rains; 2, the water-table nearly four feet below the surface,—roots of the wheat plant have been traced to a depth of more than four feet in a free mold; 3, water of capillary attraction; 4, water of drainage, or stagnant water.

Boston, Aug., 1858. J. Herbert Shedd.

For the New England Farmer.

THE PEAR ON QUINCE STOCKS.

Quite a war has been waged within the last two or three years against the culture of the pear on the quince. The battle of words has run high and been fiercely hot, and each argument for and against has no doubt been thought by its exponent as conclusive. Under certain circumstances, each may perhaps have been right, while facts on which to form general conclusions, may not, as a general thing, have been reached.

Our experience in the matter, probably not as extensive as that of many, has led us to believe that under certain circumstances as positive success will attend this species of culture as is generally found in apple tree growing, while under other circumstances it may prove a failure. The soil must be favorable for both pears and the quince. If nature has not made it so, we must, for it is of no use to attempt to grow dwarf pears more than any other fruit tree on an unfavorable soil. Ours are on an open limestone loam; the soil was deeply spaded and pulverized before transplanting them.

In our first effort with half a dozen trees our success was not very flattering, owing, probably, to a lack of knowledge. The pear was set high in the quince, and we did not set the quince under ground in all cases as we should have done. Seeing the rapid growth the pear was making over the quince, we found our mistake, and that we must re-set or have short-lived trees. This re-setting was done early the following spring, and about forty trees added to the last, in making our order for which, we requested those inoculated near the ground. In this purchase, the union between the pear and quince was from three to four inches lower than in those of the former purchase. These, in a soil made deep, (it was not naturally so,) were easily set with the quince all covered; the growth so fine that an accession was made to the number the following year, all of which have done and continue to promise well; much better than young apple trees have all around me, set and managed in the usual careless way. Many of them made a growth of branches more than four feet long the last season, and nearly all giving an abundance of blossoms this spring, from which fruit enough, and in some instances too much, set.

In our after culture, we keep the entire plot free from grass and weeds. Frequent hoeing, especially in dry times, is very beneficial to them, by keeping the earth open and saving thereby the necessity of watering. In autumn we place a bushel of manure around each tree. For this purpose swamp-muck composted with lime-ashes or well-rotted yard manure is best, from the fact that it is most durable. Early in spring this is spread at some distance from the body of the tree, as we suppose the fibrous roots have travelled in search of food, and the ground is forked, using the utmost care not to disturb root or rootlet. Such has been our course of culture, and thus far it has been attended with desirable success. We have had no trouble with disease or insects, and the trees bid as fair to reach the age of Methuselah as any other standards we have. Care in the culture of any fruit tree is necessary, and dwarf pears require it in common with others, perhaps more; but if given at the proper times, it requires less than often imagined, and if comfort or luxury pay for the labor at whose price they are purchased, in any, they will certainly pay in dwarf pear culture. W. B.

Richmond, Mass., 1858.

EXTRACTS AND REPLIES.

CROPS TO FOLLOW TURNIPS.

Will you inform me what crops will succeed well after a crop of turnips or ruta bagas, and what will not? A SUBSCRIBER.

Deep River, 1858.

REMARKS.—Our own experience in farming has not yet suggested to us what answer to make to these inquiries of our correspondent. We have long observed that turnips, generally, do not flourish well on old ground,—and the saying is quite common, that *ruta bagas* are great exhausters, and must not be applied to land twice in succession. The opinion is general, also, that crops with large leaves, such as turnips and cabbages, do not exhaust the soil so rapidly as the corn or grain crops. This is a matter which requires great accuracy of experiment in order to obtain reliable results. In order to show what different opinions prevail on these points, we give two or three extracts from the *Farmer's Guide*, a work of great research and merit.

A crop of 20 tons of turnips, and 1850 lb.= 16 cwt. 58 lb. of tops, will carry off these quantities from an acre of soil:

	By the bulbs. lb.	*By the tops.* lb.	*Total.* lb.
Potash	142.66	88.82	231.48
Soda	17·31	16·76	34.07
Magnesia	18.16	9.58	27.74
Phosphoric acid	25.77	28.80	54.57
Sulphuric acid	46 24	38.81	85.05
Chlorine	12.24	49.75	61.09
	262.38	232.52	
Gross weight to be returned to an acre			494.90

Cabbages.—A crop of cabbage 20 tons, 8 cwt. 4 lb., carries off from an acre of the soil these quantities:

Potash	105
Soda	184
Magnesia	54
Phosphoric acid	112
Sulphuric acid	192
Chlorine	52
Gross weight to be returned to an acre	699

It will be observed from these results, the much larger quantity which the green crops, potatoes, turnips, and cabbages, remove of the mineral ingredients from the soil, compared with that which the grain crops, wheat, barley, and oats, carry away—the proportion being four times as much. This is a result which observation alone would not have anticipated, because the expanded area of foliage which the green crops present to the air, would lead us to expect that their nourishment is derived more from the atmosphere than the soil; and, on the other hand, the cereal

plants, having narrow leaves, should depend more upon the resources of the soil than they seem to do. But this apparent anomaly may perhaps be explained in this manner:—The green crops weighing so very much heavier than the grain ones, from three to eight times, they ought, as a matter of course, to take a larger quantity of mineral ingredients from an acre of soil; and as all plants require to absorb a large quantity of water daily, in order to keep the saline ingredients within them in a constant state of solution, it seems necessary that the green crops should be provided with a large system of leaves, to enable them to draw, both through the roots and from the atmosphere, the large supply of water which they require to have in order to hold in constant solution the larger quantity of the saline ingredients they contain.

If this doctrine is correct, Indian corn, potatoes, wheat, rye or oats, will be suitable to follow a turnip crop. We invite some of our experienced farmers to give us their opinions on this subject.

—

A BIG BUG.

I send you an insect which I found in my door-yard this day. I do not know its name. I have shown it to a dozen or more of my neighbors, and they never saw or heard of any insect like it before. Can you tell us through the columns of the *Farmer*, or otherwise, what it is?

Ashland, July 21, 1858. A. WARFIELD.

REMARKS.—We certainly never saw anything like it before. Why, he has a pair of mandibles in his head like the hooks the ice men carry their huge cakes with. What a monster! We hope there will be only one in each State in the Union.

—

INFLUENCE OF SEX IN STOCK.

In a late number of your paper, reference is made to the opinion expressed in the Report of the Secretary of the Board of Agriculture, that "the male is of less consequence in rearing stock for dairy purposes than the female." Believing this idea to be erroneous, I was pleased to meet to-day an authority corroborative of my views. You will find it in a letter from Mr. S. W. Pomroy, of Brighton, to Mr. Quincy, Agricultural Report, vol. VI., p. 87, and seq. He says, "in the selection of bulls, most farmers confine their attention to form and color only, instead of tracing their descent from a valuable dairy stock." I remember this Mr. P. as a very sensible man, who *thought* much and *heard* but little. J. W. P.

July 22, 1858.

—

USE OF COAL TAR.

A subscriber informs us that he found coal tar, placed around his squash and cucumber vines, saved them entirely from the ravages of all kinds of bugs. Also that the smoke of coal tar will drive away rose bugs.

FINE FLEECES.

J. Smart, of Vergennes, Vt., beaten. *L. T. Herrick, Esq.*, of Milton, Vt., sheared a four-years' old buck this season, whose fleece weighed 10½ lbs. of clean washed wool; this buck was not a cosset, and has had no extra feed from the rest of his flock. He also sheared 125 ewes, whose fleeces averaged 5 lbs., and 25 of that number averaged 7 lbs. of clean washed wool, and 118 of that number had lambs. A READER.

West Milton, Vt., July, 1858.

—

SUCKERS AMONG CORN.

Is it proper or important, at any time to cut away the suckers from among corn?

If so, at what stage of its growth should it be done? EPHRAIM BARKER.

Londonderry, Vt.

REMARKS.—From what we have read and observed with regard to taking suckers from corn, we are of the opinion that *it ought not to be done at any time.*

LEACHED ASHES.

Formerly it was supposed that the process of leaching abstracted all the active virtues of wood ashes, and that, after having gone through this process, the only proper place for them was the road-side or the highway. Experience, however, has of late sufficiently demonstrated the erroneousness of this view, and many farmers who have tested the value of leached ashes as a stimulant of growing crops, as well as an alterant in physically ill-conditioned soils, are willing to purchase them at very nearly the same price which ashes formerly commanded before being leached, and convey them many miles to their farms. Millions of bushels are now used annually in the United States for agricultural purposes, and the demand increases in proportion as their value becomes known.

BLACK LAMBS.

At the farm of Chester Pike, in Cornish, N. H., we saw, a short time since, a curious freak of nature in the production of ten black lambs in a flock of seventy Spanish Merinos. The ewes were descended from sheep imported by Consul Jarvis, and had never before produced any black lambs. The buck had been used in the neighborhood for two or three years, and had (so far as Mr. Pike could ascertain) begotton no other black lambs.

We were much surprised at this, and made many inquiries concerning the circumstances attending the care and management of the sheep during the winter, but could learn nothing worthy of notice, except that the man who had charge of the flock during the fall and winter was constantly followed by a large, *black* Newfoundland dog. It would seem that the color of the lambs must be attributed to the influence of the black dog.—*Vermont Stock Journal.*

For the New England Farmer.

FLOWERS AND THEIR INFLUENCE.

A neighbor came into my garden, and looking upon a variety of flowers growing there, remarked in a reproving manner, that he had rather see that ground planted to potatoes, and it would be more profit to me, than those foolish flowers.

How common is this, or a similar remark, among a certain class of men. And what are their general characteristics? So far as my observations extend, they are unrefined, coarse in their deportment and in their intercourse with their families, and those with whom they associate. There does not seem to be a verdant spot in their hearts. They have a certain kind of affection for their families, and are attached to their associates, but it is not that high order of friendship which flows from a refined mind that has been educated to appreciate the beauties of nature. This neighbor, and kindred spirits, look upon the fields with interest, but it is in view of the prospective harvest. They have a pleasure in seeing the growth of the stalk, and the filling of the ear, that gives them bread. Such men often love a horse, or an ox, and many times exhibit great kindness, yet it is a sort of low, animal affection. It is true that men of great refinement and good taste often passionately love the noble horse, but such love for the animal is subservient to the higher order of affection which belongs to intelligent beings. This difference may be attributed to their early associations. This man did not look upon the flowers, seeing any beauty in them, nor were his senses regaled by the sweet incense that filled the air, and which should have inspired his heart with gratitude to Him, who makes the morning blush with these bright gems, which we are permitted to cultivate in our gardens and yards, and which grow wild and spontaneously upon the lawns and the hillsides, and the forests are made glad with their presence.

How powerfully do early associations for good or evil, influence our actions in future years; by them men become sordid, selfish and uncomfortable to themselves, unprofitable and disagreeable to others; or by them the better feelings of the heart are nurtured, and man becomes gentle, mild and virtuous, distilling an influence about them as the flower distils its sweet fragrance upon the breeze of the morning. As it takes mild and gentle influences to subdue the young mind, there is nothing more appropriate than the language of flowers, and the sweet melting tones of music. Are the vase of flowers and a sweet-toned instrument a part of the furniture of the sitting-room? Is a large margin of the garden set apart for flowers? Have you a fruit-yard, bearing the precious fruit in its season, that your own hands have helped to nurture, and which brings luxury to all the inmates of the family, making youth buoyant, and old age peaceful! Then, long after parents "are gathered to their fathers," brothers and sisters will love to meet at the old homestead, and tread the hallowed places, where once were the paths of youthful days.

The love of flowers, what will it not do? It elevates the man, draws out his affections, and excites modesty and humility, and all kindred virtues. It leads the mind to hold communion with Him who paints the lily's cup and gives the varied hues to every flower that breathes forth the fragrance that sweetens the air. Who does not admire that humble cottage, in a lonely place, even where poverty may at times intrude, and lay his cold and icy hand upon its inmates? yet there is cheerfulness and happiness there. The brightest evidence of this is, the modest violet and the creeping honeysuckle about the door and windows, the blooming flowers in the little garden, and the flower pot upon the window-sill. What language comes to the passer by from these evidences of refinement and taste. Our sympathies go out, unbidden, our hearts are affected, and our eyes love to linger upon such a place.

July 20, 1858. BERKSHIRE.

For the New England Farmer.

LETTER FROM A TRAVELLER.

Chester, N. H., July 28, 1858.

MY DEAR BROWN:—Not being one of your regulars, I write when the spirit moveth me, which, fortunately for you, perhaps, is not often. When at my home, in the Federal City, that spirit has a hard time of it, I guess, whenever it undertakes to move my mind in any one particular direction, for, like the compass on board an iron ship, it is so distracted by surrounding attractions, as to forget its northern affinity and roam off in all sorts of directions. But here, in this quiet and unambitious old town, the spirit can woo me to do just what it pleases, and just now it whispered, "remember the *N. E. Farmer.*" So here I am, remembering it with all my might!

"Rob Roy is on his native hills again!"

I don't know whether I ever quoted that to you before—nor do I care. I never come *here* without quoting it to myself, and what I say to one sensible man (!) I'm not ashamed to say to another; and that, somehow, has a twang to it that vibrates through my nerves, when I *am* here, just as "Auld Lang Syne" does, when I say to you, and you say to me, as we clasp *flippers*—

"And here's a hand my trusty frere,
And gi'e us a hand o' thine,
And we'll take a cup of kindness yet
For Auld Lang Syne."

I came from Exeter, here, yesterday, in company with your co-laborer, Judge French, and a pleasant ride we had, I assure you. Our talk was of farming, considerably, for you know, in the present state of the Judge's mind, he could not look on a piece of wet, sterile land without remarking "*that land wants draining,*" and when that text was named a sermon was sure to follow! It is, however, a melancholy fact that the farms between Exeter and Chester, with some worthy exceptions, might be improved not only by draining, but in many other particulars. "Those oats," said the Judge, as we passed a field that seemed to be endeavoring to strangle a very slim crop of that vegetable, "look exactly as I knew they would when I saw the man harrowing them in, up to his ankles in mud." We saw men mowing with scythes, and raking with hand-rakes, and concluded that the spirit of improvement had not yet sounded its trumpet in their ears, and that they did not take the *New England Farmer!* On the other hand we saw mowers *clipping* it

through the tall grass in grand style, and horse-rakes gathering it up for the garner, on some of the farms that appeared as if they were cultivated by *live people*. The corn crop generally, looked very promising, the hay crop not so good, and the recent rains, which have fallen in rather too much abundance, have sadly interfered with the gathering in of the latter—though, thanks to the invention of hay-caps, the crop is not very badly injured. By the way, we saw many a field, during our early ride, dotted all over with that useful contrivance, appearing like the grand encampment of an army of Liliputians, and in one field where the caps probably *ran out*, the owner of the hay had substituted old quilts, coverlids, horse-blankets and even buffalo robes! That man deserves to save his hay, and I trust his cattle will luxuriate next winter in sweet fodder, while he is comfortably sleeping under those same unique hay-caps!

This town of Chester is, as you know, dignified by a long road through its principal village, called "Chester Street." I do not believe there is, in the United States, such a half-mile of trees as that street presents to my eye at this moment, as I sit here in the old paternal mansion, where you and I have passed so many happy hours, in the days long gone by! One side of the street presents a continuous row of maples and elms, now of nearly, or quite 30 year's growth, in full foliage, and, as I view them obliquely, showing a half-mile of *solid green*. This row was mostly planted by an assistant editor of the *New England Farmer*, in his boyhood! Towering far above this growth, for a portion of the distance, is another, about 10 feet inside of it, forming an avenue—and it was planted by that same gentleman's great grandfather, about a hundred years ago. It is principally of ash. There is, however, one large elm; and as I have been travelling round with a tape line in my pocket, ever since I read the last production of "The Autocrat of the Breakfast Table," in the August number of the *Atlantic Monthly*, I measured that elm of a hundred years. Near the ground it is 12 feet in circumference—5 feet from the ground, 11 feet 4 inches—the diametrical spread of its foliage is 90 feet, and some of its limbs would make large trees. Mr. "Autocrat" says—"What makes a first-class elm? Why, size in the first place and chiefly. Anything over 20 feet of clear girth, 5 feet above the ground, and with a spread of branches a hundred feet across, may claim that title, according to my scale." So our Chester elm is still in its youth! Well, I knew that tree more than fifty years ago! and it now seems to me as if it was just about the size then, that it is now. *Small as it is*, according to our Autocrat's scale, it is an elegant and majestic tree, one of the most perfectly shaped and well-proportioned elms I have ever seen, and so sound and vigorous as to promise to come up to our friend's scale in about a hundred years more! I hope his grandchildren may have the pleasure of putting his "ring" upon it! I read that production of the Autocrat, for the first time, at Exeter, where there is an elm that the benighted people of that town have always looked upon as a monster tree. One hour after I read it, I had a tape line round that tree, at 5 feet above the root, and lo, it annouced the humiliating fact that it measured 14 feet 4 inches! I wound up the tape line mighty quick, and sneaked off as if I had been caught measuring a stalk of *tall corn*, and found it 3 feet high! Nothing takes the conceit out of large things like a measuring tape!

But, to come back to Chester Street, where I am, and where I wish I could say to you, "Simon, look down that glorious avenue; did you ever see anything more beautiful, or more silent and deserted?" Poor old Chester, where you and I played in our boyhood, loved in our days of goslinship, married in our young manhood, spent some of the best days of our lives, and look upon, even now, with reverence and deep affection! Although it is shorn of its fair proportions, first of Manchester, before we were born, and, since our remembrance, of Hookset and Auburn, it is still, to us, a green and sunny spot, and never more green or more sunny than on this beautiful July afternoon.

I have just been across the street into the old garden, picking cherries from the grand-child-trees, I should think, of those from which I picked them in my boyhood. But there stand the old St. Michael pear trees which I saw planted, and in the stocks of which plants I saw with my boy-eyes, my father set the scions when they (the stocks) were, perhaps an inch and a half in diameter. Those trees are lusty fellows now, but there is the ring around them where the new scion united itself to the stock—married for richer or for poorer, for better or for worse—no divorce from that wedlock, and even death cannot them separate! The marriage ring remains a sacred tie to them forever! Would it were always as sacred!

But I am getting garrulous in my old age, and my *brief* letter is passing the boundaries of your patience, I fear. I am no farmer, as the Judge is, and therefore you must not expect me to tell you how to plant mangel wurzel, lay drains, make wire fences, prune trees, and all that sort of thing, as he does, and I must be suffered to run on in my own way, and write of what happens to come uppermost in my mind.

It is my candid opinion that I have written enough for this time, and so I subscribe myself your own and the *New England Farmer's* very humble servant,

B. B. FRENCH.

REMARKS.—A capital letter, Major—squeeze your sponge again, by-and-bye. We are glad that all persons are not farmers; if they were, we should lose many beautiful shades and tints that we enjoy as it is.

The Judge presents us with a class of objects and opinions widely different from yours, and so on through our whole list of excellent correspondents. It is thus that we are enabled to serve up a Weekly dish, so rich and well seasoned, as to furnish something agreeable and profitable to every taste.

TEETHING IN HORSES.—The *American Veterinary Journal* for June says:—"There is no doubt that many young colts suffer as much pain in cutting their teeth as is the case with children; and the pain does not always arise, as some

persons suppose, from irritation of the mucus membrane of the mouth, occasioned by the point of the tooth, but frequently from the pressure on, and irritation of, the dental nerve. The remedy, (instead of tormenting the suffering creature with a red hot iron for the purpose of 'burning out the lampas,' as some persons profess to do,) is a common thumb lancet. Make an incision through the *gum* or mucous membrane of the mouth, in the region of the tusks or incisors, wherever the difficulty may be, and relief is almost immediate. This is a sure remedy to relieve local distension of the mucous membrane of the mouth, if it exist, and at the same time prevents the fang of the tooth from irritating the dental nerve."

LETTER FROM MR. BROWN.

Rochester, Mass., Aug. 7, 1858.

DEAR SIR:—This was formerly one of the large towns of Massachusetts, in territory, but has recently been reduced in dimensions, by clipping from its borders, and erecting two other towns, *Marion* and *Mattapoisett*. The latter town lies directly upon an arm of Buzzard's Bay, and in seasons of greater commercial prosperity, had quite a lively business in ship-building, which was of considerable importance to the people, in the absence of manufactures, which, in one form or another, may be found in almost every section of our State. The herring fishery of Mattapoisett, and the lumbering of Rochester, give a little variety to the occupation of the people, and are each a source of considerable income.

All this section of Plymouth county is quite flat, and a large portion of the land is rather uninviting to agricultural pursuits; some of the land is sandy, evidently once covered with a growth of pines, while large tracts are thickly studded with granite boulders, and a plenty of small stones to keep them company. Although farming is the principal occupation of the people, it is obvious that it has not been looked upon as a pursuit demanding study and investigation, and one requiring considerable *head-work* as well as hand-work. The great obstacle to progress here, seems to me to be, *the possession of too much land*. On inquiry of one farmer how much land he owned, he replied *four hundred acres*, and added, that his grand-father divided it between four sons, but he had managed to get it all together again! This desire amounted to a passion with him, and although now nearly eighty years old, he will not consent to the sale of a single rood. Yet on this 400 acre farm, I saw no evidence of an income equal to what I frequently find on a 40 acre farm under good cultivation,—as less than a dozen head of cattle are wintered on it, and the amount of stock kept, as a general rule, is the criterion by which I usually judge of a farm. If three-fourths of the outlands of this farm were sold at a moderate price, and the proceeds well employed on the remaining fourth, there can be no doubt that the profits of the farm would be trebled, and a new aspect given to everything about the ancient homestead.

On such lands as compose many of these farms it is a pity that farming was ever resorted to as a source of supply. The labor of clearing them of the rocks and stones is immense, and even when that is accomplished, they are too flat for most of the hoed crops, and in seasons like the present poorly reward the care and toil bestowed upon them. But directly or indirectly, good seems to come out of everything. These stern realities which meet the people at every step, have excited a good deal of activity of mind in other directions, if not in that of farming. The extensive *forests* that prevail, have suggested many curious devices in the way of circular and other saws, turning lathes, and boring and planing machines, to convert them into a thousand articles of ornament or utility,—while the rocks which have impeded the plow and obstructed the scythe for generations, could scarcely fail to stimulate some minds to devise the means of getting them out of the way; and this has been most signally accomplished in

A MACHINE FOR LIFTING ROCKS.

I was invited to the farm of THOMAS ELLIS, Esq., of this town, to see this machine in operation, and a simple account of *what I saw it do*, will be better evidence of its value than any glowing description or high-sounding phrases. It is necessary, however, first to state that the rocks *do not require any digging about*, unless they are entirely below the surface, and then only enough to make room to apply the hooks by which they are raised; a slight indentation is made on two faces of the rock with a common drill, into which the points of the hooks are placed. The machine is a simple, stout framework, upon which is a little cast-iron gearing, and the whole mounted upon strong wheels six feet in diameter. Two men and a boy with a pair of oxen and a horse, or two pairs of oxen, if the rocks are very large, are all that is required to work it, and there is no hard lifting, no chocking of wheels, no prying with bars or levers, no vexation or swearing necessary in the most effectual operation of the machine.

At 9 o'clock, it was backed over a rock showing only 3 inches out of the ground, and in 5 minutes the rock was upon the surface, in the cheerful sunlight, whose warm rays it had probably never felt so plainly before. It was then taken to another, the hooks applied, and in 6 minutes it was upon the surface. The weight of this

rock was computed to be *five* tons. Passing to another, which, upon raising, was found to be half out of the ground, it was laid up high and dry in *four minutes!* and this was all the time occupied in applying the hooks, taking out the rock, and dropping it loose upon the top of the ground! The next one occupied ten minutes. This I measured, rule in hand, and allowing 12 cubic feet for a ton, which I think was enough for the kind of rock lifted, I found it to weigh *six tons!* In one hour, 26 rocks were lifted out, varying in weight from 300 lbs. to six tons! and at the end of two hours, 45 rocks had been exhumed from their natal beds, to the glorious sunlight, which, as a great favor, shone out with resplendent brightness on this occasion.

I am clearly of the opinion that I have never seen any machine whose use would prove more profitable on rocky farms than this. I think I am competent to judge in this matter, as I spent much of my youth, and several years more recently, in reclaiming lands from the possession of rocks to the use of the plow and hoe and cultivated crops. In accomplishing the work I have described, *there was no hard labor for the men or the team;* every thing was quickly and quietly done, and apparently, without unusual effort on the part of any engaged in it. The only strain was occasionally upon a noble pair of oxen in removing some of the largest rocks a few feet from their old home; but they did it with an energy and precision that gave evidence of excellent training. Their owner held a "goad-stick" in his hand, but guided them mainly with his cheerful words.

At the expiration of two hours, the operators selected the largest rocks they had raised, and laid them in a line for a wall, and when two or three were in place, others, smaller, were laid upon them with rapidity and ease, the men having scarcely any part in the matter beyond hitching and unhitching the hooks.

This is the machine to precede the mower and horse-rake, on great numbers of our rocky New England farms, and facilitate their culture and increase their crops and profits. Those who use it, dig deep trenches where it is intended to lay a wall, trenching sometimes four or five feet deep, or as long as the digging is easy; then fill the trenches with the lesser rocks and small stones and use the earth thrown out to fill the holes left in the field. The machine weighs 2500 lbs., but standing upon wheels so large, is easily transported over the roads or fields. It is compact, wonderfully strong, has nothing liable to get out of repair or break, but a chain, and costs $275. I was sufficiently interested in it to induce me to borrow a model, which may be seen at the *Farmer* office after my return. Several persons who looked upon the operations of this machine with me, estimated that it would take two men, such as are now commonly employed upon New England farms, and two pairs of oxen *four days*, to do what the machine did in two hours. I think they were correct. Those who are interested may learn more about this Lifter by addressing THOMAS ELLIS, Esq., Rochester, Mass.

Mr. SOLOMON E. BOLLES, the inventor of the machine, informed me, that, though not intended for that purpose, yet it could be successfully operated in pulling common stumps.

The crops in all this region look finely—corn especially. The hay crop is not all gathered yet, as the frequent rains have prevented drying it. Much is now standing in cock, and in the flat country, not a little partly under water, while nearly all the fresh meadows remain uncut. A great deal of hay and considerable grain must inevitably be damaged.

I have been gratified to see several plantations of the white pine, of various heights, and appearing to be in a very flourishing condition. The pine loves this soil, and I should think the best use to which it could be devoted would be to sow it with the seeds of that tree. On one plantation which I saw the trees were about ten feet high, with an exceedingly lively foliage, and had retained their branches quite close to the ground. They certainly promise a very rapid growth.

I am indebted to Mr. Ellis for the cheerful faces of his household, for excellent bed and board, and for a charming early morning ride of five miles to the station, in a cosy carriage, with his agreeable and intelligent daughter. "It is a very pleasant world we live in"—*sometimes*, very. That is all, excepting that

I am very truly yours,

SIMON BROWN.

Joel Nourse, Esq., Boston.

For the New England Farmer.

MOWING MACHINES.

NOTES BY THE WAY.

Yesterday I was invited to witness the operations of Allen's mower, guided by Mr. Merrill, on land of Mr. Cabot. He cut before twelve o'clock, five acres, yielding at least ten tons, with no assistant near. I saw the same machine at work, to-day, on the ground of Dr. Loring, in company with Danforth's improved grass cutter, guided by Mr. Thompson, of Greenfield. Both of these implements did their work so well, that it was not easy to say which did the best. If I were to guide, I should prefer Allen's, because on this I could ride at my ease; whereas, he who guides Danforth's machine, has to tag behind.

Both these fields were calculated severely to test the powers of the implements. On the first, was spread in the spring a full dressing of ma-

cle bed, so that the shells were constantly in the way of the edge of the knives. The latter was extremely uneven, having a clayey soil, and imperfectly laid down.

I mention these facts, to rebut the idea, that mowers will operate only on even land; they will operate on any ground, when well harnessed, and skilfully drawn, but best on ground free of obstructions. ESSEX.

July 30, 1858.

For the New England Farmer.

THE SEASON.

Never have I known a more luxuriant vegetable growth in our fields. Corn, the prime hope of the farmer, is all that could be asked for it; notwithstanding its early start was slow and unpromising. Grass is sufficiently abundant, though quite a large proportion of the crop remains uncut; and much that has been cut has been injured by the superabundant rains. Much interest has been awakened by the use of machines moved by horse-power, in the cutting and curing of hay, and several new and improved patterns of implements have been introduced to our fields; while the defects of those heretofore used have been noticed and corrected. This is certain, that implements of this character are destined to general use, on all fields of sufficient extent to warrant the expense of procuring them; the particular kind to be preferred, must depend upon many contingent circumstances. Skill in the design, skill in the construction, skill in the use, are all essential to perfect work. I should as soon think of being easily shaved with a dull razor, as of having my grass well cut with a machine out of order. I perceive that some of the editorial craft of your city are untiring in their suggestions to discountenance the use of machinery in the labors of the farm. This may do very well for gentlemen of the old school; but Young America will not work long in such a harness. Her motto is, "Best first, best always."

Much less injury is experienced from the operations of insects than was expected last year. I have never seen the onion fields more luxuriant and promising; and you know this crop is the main stay of many of our most industrious cultivators. AGRICOLA.

Essex Co., July 31, 1858.

HORSE POISONED BY FUMES OF LEAD.

MR. EDITOR:—A few days since, a horse belonging to a friend, while trotting moderately along, suddenly commenced to tremble and became unmanageable—after running a short distance he fell. Being driven by the lady and son of the owner, and happening to be near at the time, I was requested to assist them. I found him upon his feet, very weak, trembling, and covered with a copious perspiration; after bleeding and walking around about one hour, he recovered, and drove home, (about three miles) apparently as well as ever, although some weak. The horse was one known to be perfectly sound, and neither having been over fed or over driven, the owner was quite anxious to ascertain the cause of the "fit." The mystery was, however, solved in my own mind after entering his stable. The owner was engaged in painting and repairing his house, and deposited in the stable, (which was quite small and poorly ventilated,) a number of pots of lead paint, mixed in various forms—but thought it was impossible that the animal, could have got at them. Now, here is what strikes me to be a very well marked case of "Lead Colic" in the horse. The most distinguished veterinary surgeons of the day have clearly demonstrated the susceptibility of animals to the poisonous action of lead—and not unfrequently we see cows, in particular, lose their lives from licking newly painted fences, &c. Although the horse might not have come in direct contact with the poison, why should not the horse suffer the same deleterious effect from breathing the air of a close stable impregnated with carbonate of lead, as a human being sleeping in a newly painted apartment? HENRY B. C. GREENE, M. D.

Saco, Me., June 2, 1858.

NOTE.—We see no reason why a horse should not be poisoned by breathing the fumes of lead as well as a man. We know of many cases where persons were attacked by colic, and rendered diseased for years, by sleeping in rooms painted with lead, before they were perfectly dry, and many a poor painter has found "death in the pot" of paint which he used in his business.

Maine Farmer.

For the New England Farmer.

RENT OF LAND IN ENGLAND.

MR. EDITOR:—In an editorial of the 24th you speak of the rents of the "cultivated lands in England and Ireland," as averaging from twenty to twenty-five dollars per acre. From the other portions of your article, I suppose you mean, by the expression "cultivated land," that used for pasturage and for hay, as well as that which is plowed.

As your estimate is much higher than I supposed the average rental of farms to be in England and Ireland, I have rather hastily looked over the series of articles on "The Rural Economy of the British Isles," published in your columns in 1856, and have copied every direct statement there made of the amount of rent in the various counties, that fell under my notice. I think it must be interesting to American farmers, who generally own their land, to know how much the farmers of England can afford to pay as rent, for their farms. I have made my extracts as brief as possible, supposing that those who have the monthly *Farmer* for 1856, and who feel any interest in the subject, will turn to the page, which is indicated in each case, and read the statement in its connection. And if my references should provoke any one who has not the volume, to purchase a copy and read nothing but those eighteen articles, I have no fear that he will accuse me of leading him into a poor speculation.

Middlesex—the metropolis county,—rents average $10 per acre. (Monthly *Farmer*, 1856, p. 252.)

Norfolk—A sandy plain of 750,000 acres, averages $6,25 per acre, net production, (not rent) which in 1780 produced scarcely $1,25 per acre. (p. 259.)

Lincolnshire—The "Fens" rent for $7,50; the "Wolds," $6,25. (p. 260.)

Somerset—$7,50 to $15,00, and even $22,50 in the "Vale." (p. 276.)

Gloucester — The "Cotswold," $4,00; the "Vale," $7,00. (p. 276.)

Chester—Grass lands, $7,50. (p. 276.)

Lancashire—Average, $7,50; near Liverpool and Manchester, arable land lets at $20,00. (p. 322.)

In Scotland, the "Lothians," which surround Edinburgh, average about $5,00, while some irrigated meadows rent as high as $150,00 to $200,00 per annum, per acre! (p. 361.)

I know nothing about the authority for these statements. But many of your readers, probably, besides myself, would like to know what rents our brother farmers do pay in old England.

In this connection, I cannot refrain from copying from the articles alluded to, a single statement as to the amount of capital required by those who hire land in England. The writer says:

"The English farmer, before 1848, held, that to conduct a farm, he must have a capital of $40 to the acre, and now he thinks $80 to the acre not too much." (p. 178.)

To hire a farm of one hundred acres, then, the poor tenant must have a capital of eight thousand dollars! Verily, one-half of the world don't know how the other lives. S. F.

Winchester, July, 1858.

AGRICULTURAL EXHIBITIONS—1858.

STATE FAIRS.

Alabama	Montgomery, Oct. 18—22.
California	Marysville, Aug. 23—28.
Connecticut	Hartford, Oct. 12—15.
Illinois	Centralia, Sept. 14—17.
Indiana	Indianapolis, Oct. 4—9.
Iowa	Oscaloosa, Sept. 28—Oct. 1.
Kentucky	Louisville, Sept. 28—Oct. 2.
Maine	Augusta, Sept. 21—24.
New Hampshire	Dover, Oct. 6—8.
New Jersey	Trenton, Sept. 14—17.
New York	Syracuse, Oct. 5—8.
North Carolina	Raleigh, Nov. 2—6.
North-Western Virginia	Wheeling Island, Sept. 14—16.
Ohio	Sandusky, Sept. 14—17.
Pennsylvania	Pittsburg, Sept. 28—Oct. 1.
Rhode Island	Providence, Sept. 14—18.
South Carolina	Columbia, Nov. 9—12.
Vermont	Burlington, Sept. 14—17.
Wisconsin	Madison, Oct. 4—8.

COUNTY SHOWS.

Essex	Danvers, Sept. 29 and 30.
Middlesex	Concord, Sept. 29.
Middlesex, North	Lowell, Sept. 15, 16 and 17.
Middlesex, South	Framingham, Sept. 21 and 22.
Worcester	Worcester, Oct. 6 and 7.
Worcester, West	Barre, Sept. 30.
Worcester, North	Fitchburg, Sept. 24.
Worcester, South	Sturbridge, Sept. 29
Hampshire, Frank. and Hamp.	Northampton, Oct. 13 and 14.
Hampshire	Amherst, Oct. 12 and 13.
Hampden	Springfield, Sept. 28, 29 and 30.
Hampden, East	Palmer, Oct. 5 and 6.
Franklin	Greenfield, Oct. 6 and 7.
Berkshire	Pittsfield, Oct. 6, 7 and 8.
Housatonic	Great Barrington, Sept. 22, 23 and 24.
Norfolk	Dedham, Sept. 28 and 29.
Bristol	Taunton, Sept. 22 and 23.
Plymouth	Bridgewater, Sept. 29 and 30.
Barnstable	Barnstable, Oct. 6 and 7.
Nantucket	Nantucket, Oct. 13 and 14

MISCELLANEOUS.

American Pomological Society	New York, Sept. 14.
National Horse Show	Springfield, Mass., Sept. 14—17.
St. Louis Ag. Mech. Association	St. Louis, Sept. 6—11.
United States Agricultural Society	Richmond, Va., Oct. 25—30.

For the New England Farmer.

WIRE FENCES.

July 26, 1858.

Hon. H. F. French:—*My Dear Friend*—Can you spare a few moments from authorship and court—ship I was about to say, but I have no authority for that, to give me some brief directions about making a wire fence?

I know what the books say, but I prefer your experience.

I wish to make a fence between my lawn and pasture, running it along on the northerly side of my pine grove.

The size of the wire, the number of the lengths, the distance and size of posts, the manner of stretching the wire, whether the trees can be used, and if so, how? These are the points of inquiry that occur to me.

Most truly, your Friend, W. C. C.

Exeter, N. H., July 29, 1858.

My Dear Sir:—Of course when you are so wise as to prefer my experience to what the books say about wire fences, I can find time to write you, though *I* have nothing against books, myself!

On the 14th day of August, 1852, I put up 70 rods of wire fence between my cow pasture and field, through the woods, using the trees for posts, occasionally cutting a stake and driving where more than 8 feet space remained between the trees, to which the wires are attached. I used number 9 wire, annealed, and but 3 wires, the highest 4 feet from the ground, and the spaces 10 inches, leaving a wide space at the bottom, of course. I attached the wires to the trees, partly with small staples made of the same wire, by myself, and partly by sawing notches into the trees and driving nails over the wires. I run crooked wherever a tree came near. Four of us put up the 70 rods in one day. The cows have looked through it each summer, with approbation at my corn-fields, but no animal has ever broken through it, and no repairs have been made upon it. The cost was,

189 pounds annealed iron wire at 6½ cents	$12,27
Labor putting up	4,00
Nails	25
Total	$16,52

being about 23½ cents per rod.

As the fence was designed to be, and is, invisible, at a few rods distance, I cared nothing about its being straight.

So much for experience, and now for a little theory, which is based on some more practice, and the wise observations of a large fraction of a century.

To build a good fence against cattle, I should use number 9 wire, *not* annealed, because it is said to be stronger. The telegraph companies, I am told, sometimes use galvanized wire which does not rust, but that is too expensive. I should

use 5 wires, so that the cattle need not be so much tempted to thrust their heads between, and so that calves and "such small deer" need not get through.

The tension of the wires makes the whole strength of the fence, and to get them straight, and keep them so—"Ay, there's the rub." No matter how far you want to go on one course, if the ground is level, stretch the wires the whole distance. A tree at each end is the best post. Indeed, it is almost impossible to set a stone or a wooden post, that will not yield to the constant strain the first spring. If you set posts, set them very deep, and brace them with strong timbers resting against short posts set for the purpose.

The best implement with which to strain the wires, is a little thing which you can make in ten minutes, in this way. It was invented, I think, by Hon. Simon Brown, of the *N. E. Farmer*. Take a stick of round hard wood, about 4 inches in diameter, and 16 inches long. With a two-inch auger, bore two holes through it, at right angles with each other; one near each end. Bore another small hole, say ¼ inch through the middle, large enough to pass the wire through conveniently. Make 2 handspikes, say 2 feet long, to fit the auger holes. Having secured the wire at one end, *unroll* it by trundling the coil along on the ground, so as not to get any kinks in it, which you are sure to do in any other way, until you reach the other end.

Bore a hole, say ½ inch or inch through the tree or post, and pass the wire through, leaving 3 or 4 feet spare length. Pass the wire through the small hole in your *windlass*, and wind it round once or twice so that it will not slip; then put in the handspikes, and you can strain it until it will "like an angel sing," or perhaps the sound will be more like a fiddle-string than the music of the spheres. You can thus apply more power than 4 horses, and can hold the strain steadily. Then drive a hard wood plug into the hole through the tree or post, on the outside. This will hold the wire, till you take off your windlass, and bind the wire a few times round the projecting end of the pin.

At 8 feet distance along the wires, drive small stakes for the purpose of keeping the wires at their proper distance apart, so that cattle cannot pass between them. With a short, stiff saw cut notches slanting downwards into the stakes, to receive the wires, and confine them by nails. A single clapboard nail driven *upward* across the wire will hold it. The whole strength of the fence depends on the end posts, and the tension of the wire, as I have said. After cattle have got acquainted with wires, they are very discreet about attempting to pass them.

One thing more. Splice the wires as the telegraph men do theirs, which you can learn by looking at them. They never loop their wires, because they will break at the loop if thus connected, but they lay the ends together, lapping them a few inches, and then bind them round with a short turn three or four times.

My land here is *clay*, and posts will not stand. Last spring I set a row of white pines between my pasture and field, 8 feet apart, fifty rods. To these I intend when they have grown a few years, to attach wires for a fence. Of course it does not do a tree much good to bore holes through it and drive nails into it, but I have several pine and oak trees not more than 6 inches in diameter, through which I made ½ inch and inch holes in 1852, three in a tree, and tortured them with my "infernal machine," and they seem to thrive none the less.

If I wanted to deal gently with the intermediate trees I should drive in irons several inches long, with holes at the ends, leaving them to project so as to keep the wires off the tree sufficiently to allow for its growth. A wire resting against the side of a tree will injure it more than if it passed through the centre, because it will cut it as the tree grows. I tried driving large spikes into my end trees, to hold the wires, but found the wires injured the trees more in this way than when put through the middle of them. If you ever saw a sugar orchard, you have observed that trees, like the "rest of mankind," may be *bored* a good deal and not die, however much they may suffer. Lest I bore you too much, I will desist, and send this by way of the *New England Farmer*, for "the greatest good of the greatest number." Yours truly, H. F. FRENCH.

EFFECTS OF THE SUN'S LIGHT ON VEGETATION.

The Ohio *Valley Farmer* publishes the following. The observations detailed were furnished by Isaac N. Woodward, of Montezuma, Indiana.

It is a well conceded fact, that the sun's light has a powerful effect upon both animals and plants, and that a certain portion of it is necessary to their growth and proper development. The different colors of vegetation, also, are attributable, to a certain extent, to the sun's light; this may be proven by noticing vegetables that have flowers, which grow in the shade, and comparing them with those that grow in the sunshine. We will find there is quite a difference in the growth and color. I have noticed that potatoes and other vines, which happen to come up in cellars, always direct their course to that portion of the cellar from which the most light emanates. But I have more particularly observed its effects on fruit trees. I find it is generally the case that those apples which grow in the tops o the trees, where they are freely exposed to the sun's light, are larger, of a brighter color, and have a richer flavor than those which grow on the under limbs or in the shade. And I believe, if

fruit-growers would pay proper attention to pruning, so as to admit the light freely among the branches, they would both improve the quality and increase the quantity of their fruit.

For the New England Farmer.

FOOD AND DRINK PHYSIOLOGICALLY CONSIDERED.

MESSRS. EDITORS:—The writer in *Blackwood's Magazine*, from whom you have recently made extracts, is as interesting as he is bold and assuming. Many of his views demand the most serious attention, especially of that class of persons for whom they seem to have been specially intended. Nevertheless, in his zeal to establish the physiological theory of diet, which I admit to be essentially correct, and to demolish the chemical theory, I believe he has gone a little too far, as I shall endeavor to show.

Admit that water is food, and "on the whole, more nutritious than roast beef," a doctrine which, in its essentials has been long taught, and that "each individual organism is specifically different from every other;" still it does thence *follow* that "common salt" is "as much an edible as the white of an egg," nor that "whatever we find in the organism is a constant and integral element, either forming a part of its structure, or one of the conditions of vital processes," alone "deserves the name of aliment." The former, *with some qualifications*, we admit; the latter, *without* qualification, we deny.

In regard to the former, I will only say that what are here called specific differences of organization, requiring different forms of aliment, are, for aught which appears, abnormal conditions or differences; and that all the cases which the writer in *Blackwood* has set down in proof of his doctrine, are in all probability only such exceptions as serve to prove the general rule that in a normal state of the system what is meat for one, in the human race as a race, as well as any of the omnivorous races below man, is meat for another, and *not* poison. The name idiosyncrasy will as well describe them as any other. That writer knows as well as I, that these specific differences, in any considerable degree, cannot be found in the infant at the breast, and that they are less frequent, in proportion to our approximation to that stage of existence, and more so as we advance into life, and become exposed to its artificials and combinations.

If salt were as much an edible as the white of an egg, if in other words it were an essential aliment—what would become of the nations and tribes and individuals that never use it? The Camanches Indians never use it. The same is true of other tribes. One whole world, that before the flood, probably never used it. Was Methuselah's life shortened, or was his health deteriorated by the want of salt, as an aliment? I know of a few individuals who seldom use salt, never when they can possibly avoid it, yet none are more healthy than they appear to be. Can the old, hackneyed stories about the terrible consequences that have followed from the exclusion of salt from human diet, or any new theories, long stand against such facts as these?

But again, if the physiological fact that muriate of soda is found in an organism was proof positive that we ought to make it an aliment, what shall we say of the fact that the same elementary principle is found in our cattle and sheep, indeed in all our herbivorous animals? Does this alone prove that they need salt? The finest cattle in Hindostan are said to be found among the Himmaleh mountains, where salt is never found, nor does it appear that they are deteriorating.

Moreover, if the fact that mineral substances, such as salt, sulphur and iron, are found to be a part of the organism, proves that we ought to eat them, should not iron, in small quantities, at least some of its oxides, be considered indispensable as edibles, no less than salt, or the white of an egg? Yet of the *one hundred persons*, more or fewer, whose blood, according to Dr. Good, contains iron enough to make a plowshare, how many ever ate iron in their whole lives?

It will not, surely, be said, by way of reply, that we take into our bodies such elementary substances as when recombined make iron, salts, &c, for that would be but yielding the whole argument, since it is most certain that if nature has the power of recombining to form one new compound, she may have to form any other. Such, at least would be the fact with regard to all things which, according to the laws of animal hemistry are susceptible of recombination, or c in other words, contain the needful elements or bases.

It is not proved of all the inhabitants of the South Sea Islands, that those who had no salt, cooked their flesh in sea water. Nor is it better proved that the wild herbaceous animals in America or Africa who frequent the salt licks go there for the sake of the salt, even though they should use it after they get there. We are by no means sure that they are not more eager, much more so, after the tender grass which shoots up so early about these licks. In either case they would become an easy prey, while there, to their enemies.

Let me not be understood as opposing the physiological theory of the writer in *Blackwood*. On the contrary, we endorse him mainly, and only regret that any part of his excellent remarks should be open to criticism. Truth gains nothing in the end by misrepresentation, even when unintentional.

W. A. ALCOTT.

Aburndale, 1858.

RE-SHINGLING OLD ROOFS.

Mr. J. T. Adams, in the *National Era*, gives the following directions:

"Whenever a roof begins to leak, and you wish to re-shingle it, do not take off the old shingles—put the new shingles on the top of the old ones—but make use of six-penny nails in place of four-penny or shingle nails. The advantage of this method will consist in the following particulars:

"1. You will save the expense of removing the shingles.

"2. The building will not be exposed to wet in case of rain, before it is finished.

"3. The roof will be much warmer and tighter.

"4. Neither snow nor rain can beat under the butts of the shingles by heavy winds.

"5. The roof will last full one-third longer.

"I have tried this plan, and find it has these

advantages. It takes no more shingles, no more nails in number—only a little longer—and no more time to put them on, and, if done in a workmanlike manner, will look as well as if shingled. But it should be done before the old shingles are too much decayed. All the moss (if any) should be removed, or swept off with a stiff broom, before putting on the new shingles."

REMARKS.—Can this be so? Will some of our readers acquainted with these matters, write upon them?

EXTRACTS AND REPLIES.

FOWL MEADOW GRASS.

DEAR SIR:—Having received your interesting paper of the 26th inst., I beg to state that your contributor, Mr. Wetherell, has fallen into some mistake in stating that *Poa serotina* is not an American grass. It has been recognized as an indigenous grass ever since Muhlenburg's days at least, in 1817, and is equally common with *Poa nervata*. Unless Mr. Wetherell means to imply that what botanists so denominate is not the same species as the European grass of that name, I cannot well account for his taking the view he does in this respect. As to which of the two grasses to which the popular name of "Fowl Meadow Grass" has been applied, may rightfully claim that name, that is a historical question, about which I have no information to offer.

Very respectfully yours

Cambridge, June, 1858. ASA GRAY.

NOTE,—This communication was mislaid or it would have been published at an earlier day. Mr. Wetherell's article discussed the value of the two grasses, and the title each has to the name of Fowl Meadow. He speaks of *Poa serotina* as a German grass, perhaps to distinguish it more particularly from *Poa nervata*, which is indigenous only to America. That the former is a native of both continents is an admitted fact, and it is a valuable addition to our indigenous grasses.

CURRANTS—MOSSY LANDS—SCOURING IN CALVES—WOOD STRAWBERRY—ONE-HORSE MOWER.

When is the best time to set out currant bushes? and how near should they be set?

What fertilizer is the best adapted to mossy lands?

What will stop a calf from "scouring?"

Where can plants of the "wood strawberry" be obtained?

Which is the best "one-horse mower?"

Will you please answer these queries through the *Farmer* and oblige INEXPERIENCE.

Charlemont, Mass., 1858.

REMARKS.—Set currant bushes in the spring, at least four feet apart.

The best fertilizer for mossy lands is a good plow and plenty of barn manure.

A dry warm shelter, dry food, and proper attendance in every way, will stop "scouring" in calves.

We cannot inform you where plants of the "Wood Strawberry" can be obtained, though they have been quite common in New England. Nor can we inform you which is the best one-horse mower, because there are several which we have not used. By next year's haying time we expect to see a better one than has been made yet.

THE PLOW AND THE SPADE.

Is it better to use the spade than the plow in a garden, provided there is time to do either? While watching a neighbor spading his garden patch and picking out the stones, the thought occurred to me—would those stones ever be any larger, should they remain buried there for years? I asked him for his opinion, and he replied, "they would; they grow like anything else." I thought not; how is it, say you?

EDMUND H. BENSON.

REMARKS.—Use the spade by all means, under such circumstances. We are inclined to think the stones will decrease, as they gradually impart their constituent particles to the soil, such as potash, lime, &c.

WHAT IS THE PROSPECT OF THE HOP TRADE?

I wish to know your opinion with regard to the hop market for the coming two or three years. Had hop raisers better continue in the business, or had they better plow up their fields, and plant and sow something that will pay them for their labor every year? I have put my hand to the plow for raising a small field of hops every year; this is the third year and haven't received a penny yet; unless you can speak favorably, I believe I shall look back. L. C. POWERS.

Ripton, Vt., 1858.

REMARKS.—Will those acquainted with the business discuss it with Mr. Powers.

AGRICULTURAL ADDRESS.

Will you, through your paper, which is very generally taken by the farmers in this vicinity, communicate the fact, that the Hon. George S. Davis, of Greenfield, has consented to deliver the address before the agricultural society in the town of Warwick, October 13, 1858. The public are invited to attend; and all the farmers in the neighboring towns are respectfully invited to enter the list of competitors for the premiums at the cattle show which is to take place on that day. JOHN GOLDSBURY.

Warwick, July 29, 1858.

BLACK POLAND TOP-KNOT FOWLS.

These fowls may be procured of C. E. French, of Braintree, Mass., or of N. P. Rines, Concord, N. H.

HALL'S STUMP PULLER.

"A FARMER," of Sparta, Tenn., will learn all he wants to know about this machine, by addressing Messrs Nourse & Co., Boston, who are Mr. Hall's Agents.

THE ART OF TAMING HORSES.

The London *Illustrated Times* is publishing articles, by Rarey, the horse-tamer, in elucidation of his theory. His method and principles are substantially those, which, a few weeks ago, we hinted they were most likely to be. He lays down three cardinal facts, in relation to the horse, on which he erects his theory. The first is that the horse is so constituted by nature, that he will not offer resistance to any demand made of him which he fully comprehends, if made in a way consistent with the laws of nature. In proof of this he refers to the want of reason in the horse, which prevents that animal from resisting the impositions constantly practised upon him, The horse is so much stronger than man, that, if he possessed the logical faculties, and was able, therefore, to realize his advantages in a contest with man, he would not submit to be driven, or ridden, but would successfuly demand to be left free to roam his favorite pastures. Happily for us, the horse has no reason; consequently no consciousness of imposition; and as a corollary, no thought of disobedience, except impulsiveness, when the law of his nature is violated.

The second proposition is that the horse has no consciousness of his strength beyond his experience, and that, accordingly, he can be handled according to our will, without force. Every one acquainted with horses knows the truth of the first part of this proposition, and the latter part follows logically from it. The third proposition is that the horse will permit any object, however frightful in appearance, to come around, over, or on him, that does not inflict pain. When fear exists from imagination, and not from the infliction of pain, that fear can be removed by showing that there is no cause for the imaginary danger. A boy, who has been frightened by a false face, or any other object that he cannot comprehend at once, will lose all his terrors if he handles the false face, or approaches the supposed spectre. So a horse, when he has familiarized himself with a stump, a robe, or other object of alarm, no longer starts, or trembles. If a horse becomes alarmed at any object on the road-side, coax him up to it, let him stand by it and touch it with his nose, and his fright will disappear.

These are the principles of Mr. Rarey's theory. They are founded on facts familiar to horsemen, and which have been made use of by thousands. The merit of Mr. Rarey consists not in the discovery of these facts, not even in the acknowledgment of them as principles, but in the very successful manner in which he has put them into operation. Many men may understand an art theoretically, yet want the executive faculty to practise it skilfully. There are persons who have had to do with horses all their lives, without acquiring as much control over them as others who have just begun to manage them. Some people have what we have heard called a magnetism in this matter. But this magnetism, we take it, is only a skilful executive. Mr. Rarey evidently possesses this faculty in the highest perfection; and, without it, we suspect his theory would practically be of little use. We have now the explanation why many persons, who have taken lessons of Mr. Rarey and his pupils, fall so far short of the performances of their teachers. After all, the great merit of Mr. Rarey's school is that it will entirely explode the old, cruel methods of breaking, and introduce others more consistent with humanity to the horse. Bancher's system of breaking dragoon horses, and saddle horses generally, proceeds on the humane principle.—*Philadelphia Ledger.*

ORIGIN OF BRANDY.

Brandy began to be distilled in France about the year 1313, but it was prepared only as a medicine, and was considered as possessing such marvellous strengthening and sanitary powers that the physicians named it "the water of life," *(l'eau de vie,)* a name it still retains, though now rendered, by excessive potations, one of life's most powerful and prevalent destroyers. Raymond Lully, a disciple of Arnold de Villa Nova, considered this admirable essence of wine to be an emanation from the Divinity, and that it was intended to re-animate and prolong the life of man. He even thought that this discovery indicated that the time had arrived for the consummation of all things—the end of the world. Before the means of determining the true quantity of alcohol in spirits were known, the dealers were in the habit of employing a very rude method of forming a notion of the strength. A given quantity of the spirits was poured upon a quantity of gunpowder in a dish and set on fire. If at the end of the combustion the gunpowder continued dry enough, it exploded, but if it had been wet by the water in the spirits, the flame of the alcohol went out without setting the powder on fire. This was called the proof. Spirits which kindled gunpowder were said to be above proof.

From the origin of the term "proof," it is obvious that its meaning must at first have been very indefinite. It could serve only to point out those spirits which are too weak to kindle gunpowder, but could not give any information respecting the relative strength of those spirits which were above proof. Even the strength of proof was not fixed, because it was influenced by the quantity of spirits employed—a small quantity of weaker spirit might be made to kindle gunpowder, while a greater quantity of a stronger might fail. Clark, in his hydrometer, which was invented about the year 1730, fixed the strength of proof spirits on the stem at the specific gravity of 0.920 at the temperature of 60 degrees. This is the strength at which proof spirit is fixed in Great Britain by act of Parliament, and at this strength it is no more than a mixture of 49 pounds of pure alcohol with 51 pounds of water. Brandy, rum, gin, and whiskey contain nearly similar proportions.—*Scientific American.*

FIRES AND FIRE SYSTEMS. — MR. JOSEPH BIRD, of Mount Auburn, has published a pamphlet of sixteen pages on this subject, which we commend especially to all city and town authorities, and to all the world beside. Mr. Bird is far from being alone in the belief that our "Fire Systems" are extravagantly expensive and ruinous in their tendencies both to property and men. Nearly all persons would believe this if they were to read Mr. Bird's three chapters on the subject of Fires and Fire Systems.

For the New England Farmer.

WIRE FENCES ONCE MORE.

How to Make the Posts—A Yankee Invention Wanted.

Exeter, N. H., Aug. 14, 1858.

FRIEND C.:—In my letter about wire fences, I see, now it is printed, that I overlooked a point that may be important to you, who want a fence that will not disfigure your beautiful grounds. For intermediate posts, you may use tire iron set in stone. There are many such posts used in Exeter, where we run a wire or two through our half-grown hedges to give them strength against cattle. We use iron of about the size of the tire of light wagon wheels. Short stone posts are set, say three feet into the ground, and holes drilled into the tops. The iron cut into suitable lengths, is rounded to fit the holes where it enters the stone, and fastened in with lead or sulphur. The wires are then passed through holes in the iron, previously punched or drilled by a blacksmith, at such distances apart, as you wish the wires to be held. The wires are passed through these holes, and strained at the ends. You may thus make the fence invisible, at a few feet distance, and the posts will have strength enough, so that you may make curves, if you desire to do so, and the work will be permanent. The stone posts should rise but an inch or two above the surface.

Some Yankee ought to invent a strong, cheap spring to hold the wires, at their tension. There is no elasticity to wire strained in the way I have before described, and a very little slackening of it impairs the strength of the fence. The spring should hold a strain of about 300 pounds. Please invent one, *pro bono publico*, and make yourself famous. Truly, your friend,

H. F. FRENCH.

For the New England Farmer.

INJURIES BY LIGHTNING.

The simultaneous injuries to persons and property, that have recently occurred at Salem and the adjoining towns by lightning, in buildings that were supposed to be secured by conductors of copper or iron in the usual forms, has awakened much inquiry as to the sufficiency of such conductors. We are pleased to notice that gentlemen of competent ability have taken the matter in hand, and hope they will pursue their inquiries, until they, at least, shall be fully satisfied of the cause of the accidents mentioned.

Whether it were from the insufficiency of the conductors; or their improper position; or from any other cause, is a fair subject of inquiry. There can be no doubt that the community are often greatly abused, by the false pretences of those, who operate for their relief, with little or no knowledge of what they do. We do not pretend to prescribe rules of action; our object will be fully attained, if we can guard against inconsiderate action. We believe that FRANKLIN had a very clear apprehension of what he prescribed; and we doubt whether subsequent alterations have all been improvements. ESSEX.

Aug. 16, 1858.

EXTRACTS AND REPLIES.

LEAKING COWS' TEATS.

"A Subscriber" inquires in your paper if there is any remedy for cows leaking their milk? I reply there is. Dip the end of the teat in strong alum water twice a day, for several days, and the leak will cease.

Milford, 1858.

—

MUCK, SALT AND LIME, COMPOST.

In composting muck with salt and lime, I wish to inquire whether the muck should be wet or dry, and in what quantities salt, lime and muck should be used, and how long it should stand before using? A. B. FRANKLIN.

Seekonk, Mass., Aug., 1858.

REMARKS.—Muck that has been lying out of doors, will be sufficiently moist to dissolve salt, or to receive air-slaked lime favorably. Six or eight bushels of lime and three or four bushels of salt thoroughly mixed with one hundred bushels of muck will form an excellent compost. If the muck has been exposed to the air several months, the compost may be used as soon as mixed; if not, let it stand three or four weeks in the mixed condition.

—

A FINE CALF.

I have a heifer calf, a cross of Durham and Native, four months old yesterday, that weighs 370 lbs. We are taking measures to raise the very best stock in this vicinity, which has long been neglected. W. P. HOOD.

—

DISTURBING THE ROOTS OF PLANTS.

Does it not materially retard the growth of a plant to disturb its roots?

And as, after corn has tasselled, its roots and fibres form a perfect network over the field, would it not retard the growth of the plant to cultivate and hoe it, thereby tearing and disturbing its roots, after it had so far advanced towards maturity?

The above questions came into my mind after perusing the article in a late *Farmer* advocating hoeing until harvest,—and if you can enlighten me on this point you will greatly oblige a

YOUNG FARMER.

North Billerica, July 26, 1858.

REMARKS.—There can be no doubt, we think, but that rudely disturbing the roots of a plant would injure it.

But, is it necessary, in order to keep a crop of corn clean, for instance, to disturb its roots? Would not the good judgment of the cultivator suggest to him that he could plow or cultivate with safety in the early stages of the crop, but that as it advances, the hoe only would be safe, and would be sufficient, with the aid of the hands

in pulling the weeds, to do all that would be necessary? Hoeing is essential, whether there are weeds or not, and we hope our "Young Farmer" will try it next year on some crop, hoeing one portion of it twice or three times as much as the other, and let us have the benefit of the result.

—

MEMORY OF THE HORSE.

The horse, like all other animals, once ran wild; but by various ways and methods has been made one of the most useful animals ever yet tamed. He can be made to run, jump, dance, lie down, or anything of the kind, and even talk, as every animal has a peculiar way of communicating with each other as well as man. What I now wish to speak of is the treat ment of the horse. If a horse once gets frightened at a certain object by the road-side, and you whip him, he will be sure to dodge at the same object or place that he first got frightened at. One day I was engaged in hitching a team before a wagon, and one horse, with the quickness of a cat, plowed his teeth against my head, which felt like the weight of a two-fisted giant. The next thing that occurred was a heavy club falling upon the poor animal's head; and now, whenever I pass by him, his head is suddenly turned from me. By such treatment a horse will long remember his master or any other one who takes similar means to subdue him. It is fear that causes an animal to shrink from your presence. We are all too apt to be harsh with our animals, and should study their natures, and learn to treat them with kindness. L. F.

Brandon, Vt., 1858.

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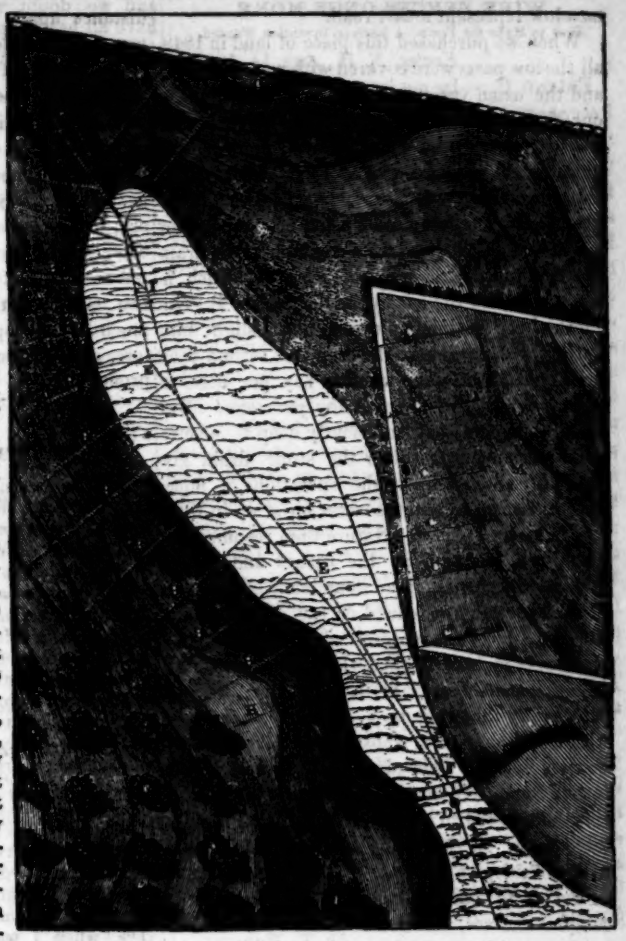
A SICK COLT.

I have a colt three years old last spring; in March last she had the common horse ail, and when I turned her out to grass she was apparently well of it. After being out awhile, I noticed that at times she had a difficulty in breathing, which still continues. She is thriving well, and is lively and inclined to caper in the pasture, but after doing so, breathes with great difficulty. In two instances I have seen her fall, and after lying a few minutes, get up and breathe well; the trouble is evidently on her lungs.

Now I wish to ask if you, or any of your numerous readers, know of any remedy for the case, and if so, you will confer a favor by inserting it in the *Farmer*. N. H. Cook.

North Parsonsfield, Me., Aug., 1858.

AN EXPERIMENT IN DRAINING.



EXPLANATION OF THE ENGRAVING.

A, is a piece of land containing about an acre, used as a *vegetable garden* on the lower side, and above is filled with pear and other trees, shrubs and small fruits.

B, and F, show the line of the main drain; F also shows the junction of the old stone drain, with the main pipe drain.

C, shows the lateral drains extending into the garden.

D, is a "Peep Hole" or Well, in which may be seen at any time, how much water is passing through the main drain.

E, is the line of a stone drain laid in 1849.

G, and H, show lateral drains running into I, and G also shows the highest land in that direction.

I, is another main drain, receiving the laterals H, and draining the hill on the west side of the low land which is designated by its lighter color. On this side hil' here is a young orch-

ard of three acres. The curved lines across the meadow represent a cart road.

When we purchased this piece of land in 1848, all the low parts were covered with water-grasses, and the usual variety of wild plants common in our New England meadows,—and among which was interspersed in plentiful profusion, the fragrant skunk cabbage, with its large, bright green leaves, and for a time almost covering every other plant. It produced almost a ton of poor fodder per acre. In 1849, we laid a common stone drain two feet deep with a six-inch gullet, which is represented on the cut by the dotted line E. The effect of the draining, plowing, and a slight manuring, was, to change the crop the second year from one ton of poor meadow hay per acre, to *three tons of good English hay per acre!* But the draining was not sufficiently deep to ensure good permanent results; the stone drain got gradually choked up by the operations of mice, and other causes, and the water burst up in little jets in several places. Nature then resumed her sway, and brought up the rushes and coarse grasses that delight in an abundance of water.

That portion of the land on the margin of the the meadow, and represented by the letter A, was never materially affected by the stone drain, —but continued wet late in the spring, and was continually throwing up a hardy meadow grass with a bulbous root, whose botanical name we do not know. This piece was plowed eleven inches deep, well manured, and sowed with carrots, but proved to be too moist to bring a profitable crop. In the spring of '57, it was plowed with difficulty on the 29*th of May*, and was then so wet as to leave portions of the furrows in compact masses, which were afterwards broken to pieces with great labor with the hoe. In the spring of '58, less than six months after it was drained, it could have been plowed with comfort at any time after the 10th of April; and during the wet month of May which followed, and at any time since, notwithstanding the constant succession of rains, the soil has been so light and porous as to fall to pieces whenever it has been worked. It is now covered with the heaviest crops that have ever stood upon it.

The drains are sunk *four feet* deep, and laid with burnt clay pipe or tile. The pipes in the main drain are three inches in diameter, and those in the lateral drains two inches, and the drains cost, completed, *seventy cents* a rod. This cost, however, will vary as wages vary, and as the soil to be dug through varies. The subsoil to be dug through in this case was extremely hard, and we were obliged to dig much too wide, for want of suitable tools. The average cost will probably be less than *fifty* cents a rod.

By reference to the plan it will be observed that the lateral drains are not all at an equal distance apart, or of the same length. These were varied in length and width according to the the condition of the ground, being brought nearer or made to penetrate the hill farther, wherever there were indications of a superabundance of water.

The experiment, so far, affords us the highest gratification. Some of the advantages gained are, that the season on that land is lengthened some two to four weeks,—that it can be cultivated with more facility and comfort and at much less cost, and that it is capable of producing much larger crops at the same expense than before, and consequently will give a greater net profit.

For the New England Farmer.

ELECTRICAL PHENOMENA.

At the coming up of the shower on Friday last, about 2 o'clock, P. M., the barn of Mr. Phillips, of Swampscot, containing fifty or more tons of hay, was set on fire by lightning and entirely burned. I have often heard it said, that barns filled with *new mown hay* are more liable to be fired by lightning than at any other time, or than any other buildings. If this be so, there must be a reason for it. Can you, Mr. Editor, give us any information on this matter?

I noticed the cloud on Friday, as it rose at the north, and moved terrifically on to the south; and just as it appeared overhead, it was met by another cloud from the west. At this junction the crashing of the thunder was tremendous. This was before the rain commenced; and so was the firing of the barn. About the same time a man was killed two miles north of us, and another was paralyzed, about one mile to the east. I remember the first fire caused by lightning I ever knew, was the barn of Dr. Amos Putnam, of Danvers, when I was at school. I was so much frightened by this event, that I have taken particular notice, when barns are burned by lightning, ever since. If it be true that conductors can be so placed on buildings as to protect them; and that the barns of farmers, after their hay is gathered in, are specially liable to be burned, it behoves them to be on their guard. So little is known of the laws by which lightning is regulated, that all facts carefully observed, connected therewith, are worthy to be recorded. P.

South Danvers, Aug. 9, 1858.

REMARKS.—We prefer to leave the question propounded by friend P. to be answered by those possessing exact knowledge of the laws and nature of electricity.

WILLIAM F. BASSETT, Esq., of Ashfield, Mass., has presented us with some fine Ladies' Sweeting Apples, of last year's growth. They retain their plumpness and color admirably, and have received no other care than being kept open in the cellar.

For the New England Farmer.

LETTER FROM MR. HOLBROOK.

Abortion in Cows—The Universal Plow—A fine Corn Field—Superphosphate of Lime—Another field of Corn under different treatment—An Old Pasture Revived—Effects of Bone Dust, Guano, and Unleached Ashes.

MR. BROWN:—*My Dear Sir*—I hoped to spend a day with you ere this, and to have a pleasant chat upon various topics, but one thing and another has come up to prevent. I have several interesting matters in reserve, to discuss with you when we meet again. Many things present themselves to one of an observing mind, in the course of a season upon the farm, which much engage his thoughts, and about which he likes to talk with a friend who feels an interest in them kindred with his own. I often think how much we should enjoy, if we could easily and frequently meet together, and canvass the various subjects of agriculture which our meeting would of itself naturally bring up. You doubtless remember how unconsciously we have neared the midnight hour, on those occasions when we have sat down together for an evening's agricultural talk. If one could only write on these subjects, by himself, half as well as he can talk them, prompted and excited by conversation with a friend, there might be something done. But although these occasional social meetings, when we live down months in moments, have an important after influence in directing and shaping our views and thoughts, they also have aspects of a nature too etherial and exalted to be long detained in this dusty life of ours.

Among our topics when I was last at your house at Concord, I remember was that of Farm Stock, and the difficulty that has appeared among the cows in your locality, where numbers of them are kept together. I afterwards received a polite invitation from the Secretary of your *Farmers' Club*, to be present at a meeting of the club, when this matter would come up for discussion; but much to my regret, I could not comply with the invitation. Have you found the cause of the difficulty; and if so, why not publish a statement about it in the *Farmer?*

I presume you used the Universal Plow upon your farm again last spring, and lent it to some of your neighbors to try; and I hope it worked as satisfactorily as at our trial of it at your place last fall. Several persons in this section have used the plow, changing it variously for stubble, lap and flat furrow, sod, and sod and subsoil plowing, and are well pleased with it. It was a long and perplexing study to originate and combine in a simple way the various parts of this instrument, but there is a wide variety and a quality of plowing to be got out of it, which I trust will suit the farmers, and prove an economical convenience for them.

I have been rambling to-day among the fields, and have found some things which interest me so much that I will mention them to you. I first looked at a field of corn belonging to my friend, RICHARDS BRADLEY, Esq. It is a remarkable and interesting sight, especially considering the condition of the land a year ago, and the contrast between its present product and that of the surrounding unimproved land. Mr. Bradley purchased quite a tract of land last year, in very low condition, but naturally of a good loam soil, which he intends to improve for tillage purposes. Certainly, judging from the success of this first effort, the whole tract will in a few years be made to "blossom as the rose."

This corn-field consists of between three and four acres of the poorest part of the land purchased. It had formerly been much reduced in fertility by shallow plowing and severe cropping with rye and other grain, and for a few years past was allowed to lie in pasture, and had covered itself with a light sward of grass and moss, interspersed with sweet fern, scattering shrub-pines and other bushes. Last November the land was broken up, nine inches deep, with the Universal Plow rigged in sod and subsoil fashion, and drawn by four cattle,—the plowing being handsomely executed and all the vegetable growth well buried. In the spring the field was dressed with twenty-five two horse loads, or about fourteen cords, of stable manure to the acre, which was spread broadcast and turned under from four to five inches deep, with a light steel plow, so sharp on its cutting edges as to shave off a thin furrow without pulling up the sod that had been buried in the fall. The ground was then lightly harrowed, and marked out in rows one way, three and a half feet apart, and the hills were made two and a half feet apart in the rows.

About a common table-spoonful of superphosphate of lime was placed in each hill, and the corn was dropped directly upon and in contact with it. A few rows, however, were planted without superphosphate, and a few others had as much as a single handful of it applied to each hill, by way of experiment. The corn generally came up well, and has grown with remarkable rapidity ever since. The ears stand thickly, and the stalks have a deep green and healthy appearance. There has been no drought, high wind nor storm as yet to injure the corn, and there is every prospect now that the yield of corn and of fodder will be quite large,—sufficient to more than pay for all that has been done to the land, leaving it in a highly improved condition for succeeding crops. The best corn is where a spoonful of superphosphate was applied in the hill; the poorest is where none was used; and where a handful was applied, the corn that came up and survived is now stout and good, but so large a dose of the fertilizer rather prevented the corn from coming up as evenly and well as where a less quantity was applied; and the large dose somewhat injured the young, delicate roots of the corn, and considerably retarded its growth for several weeks.

The land had heretofore been plowed only about four to five inches deep, and had been severely taxed to that depth. Last November it was broken up about twice as deep as ever before, which brought up four or five inches of soil to cultivation that had never seen daylight, and which seems to operate upon the corn like fresh soil. The plowed land changed color very perceptibly soon after it was turned up, and before winter set in it was of a darker hue, by several shades, than when first plowed.

My walk next brought me to one of my own corn-fields, which I have been observing pretty closely all summer. The land was heavily manured this season, with fine rotten compost, which was plowed under the turf, say about sev-

en inches deep. It has been my usual custom, when using compost manure upon sod land, for corn, to first plow the land from seven to ten inches deep, according to its qualities, and then spread the compost upon the plowed land and harrow and lightly plow it in, so as to cover it three or four inches deep. The manure thus treated has always made a heavy crop of corn and fodder, and nothing has been needed in the hill to bring the crop forward early, for the roots very soon struck through the mellow seed-bed into the manure, so as to give the corn a rapid growth. This year, however, I thought I would try one field of corn more, with the compost turned under the sod.

The corn stands quite even, and is of pretty good color and size, but backward, and lacks that great stout growth my fields usually show at this season of the year. It may in the end come up to a favorable comparison with previous crops, where the manure was kept nearer the surface, but I have my doubts about it. The compost being already fermented and rotten, it lies too dead and inactive at the bottom of the furrow and under the sod. Perhaps when it is turned up to the surface again, for succeeding crops, it will make a satisfactory mark upon them; but I fear it is one year too late to suit me exactly. Coarse unfermented manure would have done better under the turf; or if the land had been stubble instead of green sward, the compost would have done better plowed in seven inches deep. From experiments I had tried years ago, I felt pretty sure I knew about this matter of burying fine manure under the turf, but still I tried it again, with something of the spirit a friend once manifested when I was looking over his farm with him. He was quite as particular to show me all the failures, as the successes in his farming, remarking—"I tried this or that so, because I want to know what wont do as well as what will."

I next visited a tract of upland pasture, in which is a piece of twelve acres, that four years since was the poorest part of the whole, and was plowed up and re-seeded at once to grass. You may remember that I mentioned this piece of land in a communication to the *Farmer*, two years ago this present month. The land was covered with a sward of moss and feeble grasses, with bushes and shrubs of various sorts, the largest of which were pulled up with the oxen, root and branch, and hauled off the field and burned. In the month of August the land was broken up about six inches deep, with a large plow drawn by two yokes of oxen, and much pains was taken to lay the sward over smooth and flat, so as to bury the old vegetation, and make a good clean surface for the new seeding. A part of the field was then dressed with 400 lbs. of bone dust per acre, a part with 300 lbs. of Peruvian guano, and the balance with twenty bushels of unleached ashes to the acre, and the land harrowed lengthwise and across the furrows. Twelve quarts of herds grass and one bushel of red-top seed, together with about one bushel of winter rye, were then sown on each acre, and the land lightly harrowed, and smoothed down with the roller. The rye was fed off by the cows, while the young grass was getting root, and was not allowed to mature into a grain crop.

The new seeding came up well, and has ever since afforded excellent pasturage. The grass today stands thick and strong, and has a life and vigor about it not possessed by that on the surrounding old swards. There is apparently little or no difference in the beneficial effects of the ashes and the bone dust. The grass on that portion of the field where the guano was applied is good, but not quite so thick and strong as where the ashes and the bone were used. The cows visit the field daily, keeping the grass down very close and smooth, and apparently preferring it to any other feed in the entire range of pasture. The contrast is quite marked between the green and luxuriant grass of this field, and the brown and dingy vegetation of the adjoining lands; so great, indeed, as to leave no doubt in the mind of the observer that it will be best to plow up the remainder of the tract and seed it anew.

I wish that persons who have tolerably smooth old pasture lands, where the grass is feeble and poor and needs renewing, might try the effects of plowing up and re-seeding at least an acre or two. The work should be done in August, or quite early in September, turning the sod over just as nicely as it can be done. If a light dressing of ashes or some other concentrated fertilizer can be had, that will help the young grass to come up well. Even ten bushels of unleached ashes to the acre would show good effects; and so would a mixture of say five bushels of ashes with two or three hundred weight of plaster to the acre. But even without these applications, the pasture will be improved by plowing and re-seeding. The old bound out sward of moss and grasses of inferior quality, the sweet fern and other small bushes, and the cattle droppings, being turned smoothly under, decompose gradually and give nourishment to the better grasses of the new seeding. In no case, however, should a crop of grain be taken off, unless the land has been fully compensated by the application of some fertilizer to it, for the grain would tax the land too much, and bring in moss and other poor herbage, thus preventing all improvement.

Well, my friend, this has become a long story of mine, but if you will just come and take a tramp round the fields here with me, I will show you a great deal more than I can communicate by writing.

Brattleboro', Aug. 2, 1858.

REMARKS.—Thank you, for the invitation, but we must take our "tramp" in another direction at present.

The "Concord Farmers' Club" has never found any satisfactory cause for the abortion in cows which prevails to such an extent in that vicinity. One farmer in Concord told us he would pay $200 a year as a guaranty against that disease. We have known 30 cases in a single neighborhood during one spring season. It seems to occur equally among cows fed and stabled in all the usual ways—so that it is not confined to cows fed with oat meal, corn meal, shorts, roots, or on hay alone, or tied with chains, bows or stanchions—it occurs among them all, and is one of our greatest hindrances to profitable farming. Who can solve the knotty question?

We have used the Universal Plow, and so have our neighbors, with great gratification and profit. Mr. WOOD, who was present at the trial with you, recently plowed two acres of old sward land immediately after it was mowed, with the skim plow affixed, and we believe we are entirely within bounds in saying that not a single peck of grass could have been gathered on the whole two acres after it was plowed. Every thing green was covered, and the furrows were so minutely cracked or broken that *no harrowing was needed* to put in a crop of ruta bagas; it was furrowed out, manured in the furrows, seeded and covered with great ease and convenience, without the use of the harrow.

For the New England Farmer.

SALTING HAY—MARSH HAY.

MR. EDITOR:—In a catching season like the present it is with difficulty that farmers can safely secure their hay. I can scarcely get two whole days of good hay weather, consequently I am often obliged to get it in before it is fully made, or run the risk of another storm; and am under the necessity of using more or less salt.

A difference in opinion prevails as to the amount of salt to be used, as regards the health, and thrift, of our cattle. Some object to as much as 6 or 8 quarts to a ton, because, they say, if an animal should have access to salt, he would not devour as much while eating a ton of hay, and if he is obliged to take more than his appetite would crave, it does him injury.

In the eastern part of Essex county a large amount of salt hay is used; some farmers keep their young stock and oxen that don't work hard, almost exclusively on salt hay, and if they are well attended to, they generally thrive and appear to be in perfect health. There is a difference in the amount of salt contained in a ton of salt hay; that which grows on very low meadow, and remote from fresh water streams, being more salt than that from higher meadow, and perhaps near the mouth of a river. If it is cut after a high run of tides, before any rain has fallen to wash the salt from the grass, and secured without rain, it is more salt than that which has been washed either before or after it is cut.

Can any one tell how much salt it would take to make a ton of English or fresh meadow hay, as salt as salt hay from low marsh, secured without rain? I think myself it would be more than 8, 10, or 12 quarts per ton; and still, on this very salt fodder, cattle thrive and appear to be in perfect health, as indicated by their glossy coat, bright eye, and active movements.

HAY-MAKER.

Newburyport, Aug. 10, 1858.

THE HORTICULTURIST for August is a capital number. The leading article by the Editor, J. JAY SMITH, is racy and reasonable. The illustrations are pleasant, and the articles various and practical—the one on Roots, discussing the roots of plants, is excellent. We are pleased to see occasional articles from our southern friends in this popular journal. Published by SAXTON, 25 Park Row, New York.

LETTER FROM MR. BROWN.

Francestown, N. H., Aug. 10, 1858.

DEAR SIR:—My last letter was dated on the flat lands of Plymouth county, Mass., on the shores of Buzzard's Bay; now I date from one of the most romantic spots that New England affords. The sun is just rising, lighting up the whole eastern horizon, and every hill top that lifts its head between me and the Atlantic coast. A vast basin lies before me, presenting an apparent confusion of rocks, hills, valleys, forests and ponds, but upon travelling through it, is found to be threaded with excellent roads, with sweet and fertilizing streams, and checkered with productive farms, the abodes of intelligent and industrious free-holders. This town was the birthplace of the late Hon. LEVI WOODBURY, Secretary of the Treasury during the administration of Mr. Polk, and one of the Judges of the U. S. Supreme Court at the time of his decease. His father died here in 1823, at the advanced age of 85. He was an active soldier in the old French war, and was engaged by the side of Gen. Wolfe when he was killed at the memorable siege of Quebec. He was one of the truly invincible *rangers* under the immortal STARK, and discharged every duty in a prompt and courageous manner. This town was also the scene of some serious Indian troubles. A story is told of one RICHARD BATTEN, who was captured by them in the year 1757. Although guarded by two warriors, by his wonderful strength and agility he effected his escape, but not without the loss of all his clothes. He wandered entirely naked between the lakes George and Champlain for six days, eating nothing but berries and bark, and swam the Hudson river three times, in order the more effectually to elude his pursuers.

There is here an extensive and valuable quarry of freestone, which used to be transported to Boston in large quantities. In the north part of the town black lead is found of a good quality. But what sound is that! The tramp of horses and the rattling of stage wheels! Familiar once as household words, and still familiar here, where the shrill note of the locomotive whistle has never yet echoed among the hills. Ten, twelve, fifteen miles to the nearest station! How *do* the people get out to mingle with the great world! By stages, sir, and by means of their light vehicles and hardy horses that are bred upon the hills. Why, the terms used "On Change," or on the Court side of "Washington Street," are almost as familiar here as there own vernacular language, while ample hoops distend skirts of the finest

fabric, or high heels set fair damsels a tiptoe in every lovely vale or on every breezy hill I have visited. You cannot hem in a true Yankee, body or soul, or draw a cordon thick and strong enough to keep the fashions away from a young Yankee girl whose pulses are beating with health and joy—bless her heart—among these healthful and inspiring hills. When you come into this region, you will find a touch of the modern in every thing, whether railroads traverse it or not. The same *animus* that moves the modes and styles on the pavements, inspires the same nature in this world among the clouds—so that you not only find a pleasant elegance in the sitting-room and parlor, and often in the architectural taste manifested in the construction of new buildings, but a suavity of manner and a refinement of feeling, not often surpassed in any New England society. The stage we passed to-day had *eighteen passengers* on and in it, beside the driver, and a world of baggage, probably just from some fashionable resort on the sea-shore, Hampton, Cohasset or Nahant! What power could keep these "free and independent" people *in*, is a question more pertinent than to ask how they get *out*.

But my good steed is at the door; the hot coffee, corn bread and sweet butter have received due attention, and I must now be on the road again. Old Monadnock and the White Mountain range are in view, as we snuff the cool mountain air, and slowly creep down "Cork Hill," and approach the sources of the ancient Piscataquog, where the Indian once threw his spear, and built his forest fire.

Before closing this sheet, I cannot forbear to speak of the excellent roads which I travel over in every part of this State. I have not found their equal in any part of Massachusetts, for an equal extent. On inquiring of Capt. JOSIAH STONE, of Hancock, how they managed them, he said that as early in April as the condition of the roads would permit, they pass over them with a heavy harrow, stirring the gravel as deep as they can make the teeth of the harrow penetrate. A slight filling up of the low places, and a rolling finishes the work, and the result is the finest country roads we have ever travelled over.

Very truly yours, SIMON BROWN.

Joel Nourse, Esq., Boston.

FRANKLIN COUNTY FAIR, VT.—We learn with pleasure that Col. DANIEL NEEDHAM, of Hartford, Vt., will deliver the annual address before the *Franklin County Agricultural Society* of that State, at St. Albans, on the thirtieth of September next. The Col. is a practical, as well as an educated man, and he will prepare an address that will be profitable to those who give their attention to it.

For the New England Farmer.

MATTERS IN IOWA.

I wish all discontented New England farmers could be out West this summer. It would teach them a lesson which they very much need to learn, viz., to stop croaking. Of all the hard, dull, blue times I ever knew in Massachusetts, the present times in Iowa are the bluest. Property of all kinds, except money, has depreciated from one-third to one-half its estimated value one year ago. There is not half so much money in circulation as there was a year ago. The crop of wheat and oats, in a large part of the State, is less than half of last year; and in many instances will not pay for harvesting. My nearest neighbor has sold his wheat in the field for the seed; *i. e.*, as many bushels as he sowed. Another neighbor does not consider his worth cutting. The season has been very wet, more so than was ever known before. Weeds and vines are rank enough; corn and potatoes doubtful, as yet. Moreover, almost everybody is in debt, and, like a fly in molasses, can't get out. The harder one tries, the worse off he becomes. Borrowing money only sinks him in deeper trouble; for interest is high, and property is stationary or still depreciating. Many will be obliged to give up their farms, one-half and two-thirds paid for, to cancel the balance.

The prospect for another year is dark enough. Immigration from the East has been less than usual, and few improvements are being made. We have enough to eat for some time to come. And so have the farmers of Massachusetts; and in addition to that, they have many other comforts and conveniences which cannot be had here.

Nevertheless, as Mrs. Hemans has beautifully sung:—

> "The gloomiest soul is not all gloom;
> The saddest heart is not all sadness;
> And sweetly o'er the darkest doom,
> There shines some lingering beam of gladness."

There must, it would seem, some good grow out of all this evil and trial. It will curtail some of the reckless speculation which has raged for years past. It will show men the folly of running in debt so much, and the advantages of the cash system. Men are too eager to be rich and independent of labor; too much bent upon their own gratification and self-will; too impatient of the restraints of morality and religion. All this needs a powerful check, and the hard times would have been of but little benefit, if they had passed away as soon as men wished and prophesied. The medicine will not only be more bitter another year, but will effect a more thorough cure. Prosperity will doubtless return again, sometime, but not speedily; and herein, Gov. Seward, who foretold a recovery as rapid as the depression, has proved himself a mistaken prophet.

Yet some of our people have been so profoundly beguiled, that they are not yet awake to the stern reality. A man who came from New England some twenty years ago, told me, lately, that he did not believe he could get a living on one of the best farms around Boston. I replied that if I owned one of them, and was on it, I would *try*. If I owned only a very ordinary farm in any healthy, respectable locality in Massachusetts, I would not so far surrender my good sense to mere im-

agination, as to leave it, in the hope of bettering my condition by removing to Iowa, or any other place west of the Mississippi. And I consider Iowa as good a State as any other out of New England. It is certainly a healthy place where I am located. I have been here nearly three years, and in my capacity as the minister of more than an average congregation, have been called to attend but a single funeral, and that of an infant, for more than fourteen months; and of but a single adult during the whole three years.

My wife suggests that I shall be considered homesick, from my letter. I confess to a little of it; especially since the citizens of the county seat of Cedar, under the combined influence of the hard times, high taxes, party spirit, and ignorance of their own best interests, have just voted down a flourishing union school founded on the free school system lately adopted in this State. If the question should be asked, whether this type of sickness is not somewhat prevalent, just now, in our otherwise healthy State, truth would probably compel us to admit it. M. K. C.

Tipton, Iowa, July 30, 1858.

REMARKS.—We regret to hear so unfavorable accounts of matters in the West, and sincerely hope our friend's forebodings will be brightened by a good many gleams of sunshine which he cannot now anticipate. He will accept our thanks for the records of events in the West which he has been so kind as to frequently send us.

For the New England Farmer.

LETTER FROM A TRAVELLER.

Danvers, Aug. 3, 1858.

DEAR BROWN:—As I am roving about New England, I hardly know how I can better employ my time than in giving you a few of my experiences. My last letter was written at Chester. From that steady, unexcitable old place, the judge and your humble servant put out for Exeter, the day following that writing, where I remained until yesterday morning, when we took the cars—the judge and I—at half-past six, and arrived here—at the hospitable head-quarters of Major General William Sutton—between 9 and 10, A. M., where we met

"A more than Highland welcome."

Prior to dining, the General took us to the Peabody Institute, where we spent the best part of an hour in examining the interesting matters in that monument of liberality, which was erected by George Peabody, of London, as a token of his love and veneration for his native town. It contains a fine library, many curiosities of literature, such as autographs, autograph letters, &c., and other things which I cannot stop to particularize. Its lecture hall is one of the best arranged rooms I have ever seen, and capable of seating between 1500 and 2000 people comfortably. The building itself is plain, but handsome and substantially built, brick, enclosed in a handsome and durable iron fence. It is an honor to the town and the generous donor.

From thence we went to "Harmony Grove" cemetery; a very beautiful home for the dead, containing some forty acres of hill and dale, handsomely laid out, in which are some very handsome monuments, enclosures, &c. There is no more consoling observation for a living man than the one that cannot but be made, in these times, by every one, of the vast stride that has been made within the past twenty years toward a care by the living for a resting-place for the dead, that shall carry with it pleasant associations. Any one who will, as I did, visit the old, forlorn, weed and thistle clad cemetery near the Salem and Danvers line, whose chief attraction is, that there lie the remains of Elizabeth Whitman, once made famous among novel readers as "Eliza Wharton," and an hour afterward the beautiful "Harmony Grove," must be most forcibly struck with the immense change that has come over the public mind in respect to this matter.

We next called at the office of Mr. Proctor, one of your correspondents, I believe; but he was not in. He joined us, however, after dinner, and accompanied us in our *excursion* over Gen. Sutton's farm. As soon as we had partaken of dinner we started to see the farm. We visited the barns, tool-houses and work-shops first. The barns were filled—*stuffed* is a more appropriate word—with hay, and all the arrangements about them were of the most modern and approved kind; but I am not enough of a farmer to appreciate, perhaps, all that I saw there. I only know I was very much interested; but when I came to the tool-house and work-shop, I confess my admiration. In the former, there were shovels, spades, hoes, rakes, cultivators, plows, chains, scythes—indeed, about every tool necessary for the cultivation of the farm and garden, ancient and modern, old and new, and all arranged with a method that would do credit to your publisher's agricultural implement establishment. I have seen a great many tool-houses, but never one that came within a long distance of Gen. Sutton's. Of the work-shop I could judge, as I have one of my own, and should as soon think of getting along without cooking utensils in my house, as without a work-shop and tools. But, my friend the General's placed mine in total eclipse! With one of his arrangements I was particularly struck, and shall assuredly adopt it. I noticed that all his screws, small nails, tacks, rivets, and such small things, were sorted, and each sort put in a wide-mouthed glass bottle, giving his shelves somewhat the appearance of an apothecary's shop. It struck me as a capital, and most convenient arrangement. Indeed, method and order are impressed on every thing about the General's establishment.

From the buildings we proceeded to the farm, and we were taken a right good tramp, I assure you. The General's farm contains some 400 acres; we did not go *all* over it, but we saw enough to convince us that few farmers in old Essex will house more of the good things that the farm provides of all kinds than our friend. His corn, and potatoes, and onions, and turnips, and mangols, and khol-rabi, equalled any thing I have ever seen on anybody's farm. One of his mowers was upon the ground, which led to a conversation upon the subject of mowers, when he told us that he used a yoke of oxen, with a horse on before them, in mowing with his machine, and found it a very great improvement. The General and Judge had a regular talk, both

being farmers, on all sorts of farming matters, not forgetting, of course, *the draining of land*, and we were taken to that part of the farm which requires draining, and you may expect, in the course of another season, to hear the results from the judge's pen of our visit to that part of the farm.

On our arrival at the house we found the General's carriage ready to convey us to Mr. R. S. Fay's beautifully romantic farm in Lynn, where we spent several hours most pleasantly, and with much gratification and profit.

I have, however, written all I can find time to write to-day, and will say something particularly of our visit to Mr. Fay's, when I write again.

Adieu. In haste yours ever,

B. B. FRENCH.

For the New England Farmer.

THE HAY CROP OF 1858.

Notwithstanding the superabundant burden of grass grown upon the land, there is good reason to believe that the amount of *well cured hay* will fall much below the average quantity. Those who were on the alert, in the first of the season, by the use of mowers, or otherwise, and got their crops under cover, hit the nail on the head. One-half of the time for a month past has been better fitted to destroy than to cure hay. I have seen in the field, the present season, the Heath machine, the Allen machine, the Ketchum machine, the Manny machine, the Russell machine, the Danforth machine, with their several alterations and improvements, and the conclusion of the whole matter, in my mind is, there still remains much room for further improvement. There is so much hazarded in meddling with *edge tools*, that I am not prepared to express a preference for either of the implements mentioned, though I think either of them on large farms of fifty acres or more of land to be mowed, is to be preferred to the scythe.

August 10, 1858.

☞ A thousand acts of thought, and will, and deed, shape the features and expression of the soul—habits of love, and purity, and truth—habits of falsehood, malice, and uncleanness—silently mould and fashion it, till at length it wears the likeness of God, or the image and superscription of the Evil One.

BOYS' DEPARTMENT.

THE LITTLE STRINGS.

Did you ever see a gutta-percha face, children? And did you ever amuse yourself with pinching it one way and pulling it another, and seeing what different expressions it will put on? When you cease pulling and pinching it, it returns to the same face it was before.

Now your little faces are softer than gutta-percha, and they are full of the little strings called muscles; and the little muscles pull them one way, and pull them another, just according to your feelings. Sometimes you feel grieved or sad, and the little muscles pull your face into a very doleful expression, and we know by looking at you just how you feel. Sometimes you feel pleased or merry, and the little muscles pull your faces into smiles and dimples.

But often there are wicked passions at work at the strings. Anger pulls, and O, what a disagreeable look the face puts on in a minute. Pride pulls the strings, or vanity, or envy, or discontent, or deceit, and each brings its own expression over the face.

The worst of it is, that when these passions pull very often the face does not return to what it was before, but the muscles harden and retain that ugly expression. By indulging in evil passions people may work their faces up into such awful faces, that sometimes when you meet a man in the street you can tell, just by looking at his face, what his character is.

A face that was very lovely when it was that of a child, has had the passion of anger pulling at it so often that it always wears a sullen, cross, dissatisfied look. Or if a man has learned to love to hoard up money for its own sake, his face gets a mean, grasping look, and we say when we pass him, "There goes a miser." Or if he has learned to lie and steal, he cannot make his face that of a truthful, honest man.

Now, dear children, do you want to have pleasant faces, that every body will love to look at? *Then don't let the ugly passions get hold of the strings.* Put them into the hands of love and charity and good-will and truth and honesty, and then they will be beautiful faces.

I have seen faces without a single handsome feature, that were sweeter to look at than the most perefect features that ever were formed. And why? It was the *expression*. And what makes the expression? O, it all depends upon whether the bad passions or the lovely virtues get hold of the *little strings*.—*American Messenger.*

ALPHABET OF PROVERBS.

A grain of prudence is worth a pound of craft.
Boasters are cousins to liars.
Confession of a fault makes half amends.
Denying a fault doubles it.
Envy shooteth at others and wounds herself.
Foolish fear doubles danger.
God reaches us good things by our hands.
He has hard work who has nothing to do.
It costs more to revenge wrongs than to bear them.
Knavery is the worst trade.
Learning makes a man fit company for himself.
Modesty is a guard to virtue.
Not to hear conscience is the way to silence it.
One hour to-day is worth two to-morrow.
Proud looks make foul works in fair faces.
Quiet conscience gives quiet sleep.
Richest is he that wants least.
Small faults indulged are little thieves that let in greater.
The boughs that bear most hang lowest.
Upright walking is sure walking.
Virture and happiness are mother and daughter.
Wise men make more opportunities than they find.
You never lose by doing a good turn.
Zeal without knowledge is fire without light.

Young People's Pocket Book for 1858.